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|

City of Boston  
Mayor Martin J. Walsh

# Amazon HQ2

**Request for Proposal Response**

October 2017





**Mayor Martin J. Walsh  
City of Boston**

It is with pride and enthusiasm that I propose Boston become the home of Amazon's second North American headquarters. As America's city of revolutionary progress, Boston is the perfect fit for Amazon to build community, create opportunity, and advance its world-changing mission.

Boston's strengths are rooted deeply in our values.

Having built America's first schools, Boston is now the world's capital of learning. From pre-kindergarten to Ph.D., we are preparing the next generation for success. We have more top-tier research universities than any other American city, along with a dozen teaching hospitals and countless research institutes. Each year, hundreds of thousands of future leaders and innovators come from across the globe to learn, grow, connect, and create on Boston's campuses. Our talent pool is the whole world.

We are a proud city of immigrants that has become a 21st-century global hub. Our diverse neighborhoods, campuses, and workplaces are meeting grounds for the world's people and cultures. Our international airport serves an ever-growing roster of direct flights to and from around the globe, as students, tourists, investors, and innovators make Boston their prime destination.

Boston built America's first subway, and we remain a national leader in public transit and active transportation. With an iconic harbor and the first public parks, our commitment to the environment supports our unrivaled quality of life. Always a beacon of the arts, last year we completed a spectacular renovation of America's first municipal library. Our culture of innovation produced the first telephone and the computing machines that unlocked the digital revolution, and we are now wiring our city with one of the nation's best fiber networks.

The future is taking shape in Boston. We are the world leader in life sciences and rank at the forefront of digital industry, software, robotics, cyber security, and green technology. Already home to a growing Amazon presence, Boston welcomes this next, transformative step into the heart of our thriving economy and community of innovators.

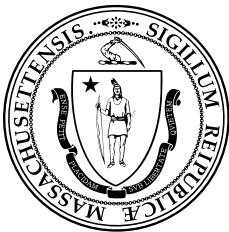
Recently we completed Imagine Boston 2030, a comprehensive citywide plan. It's a roadmap for inclusive, long-term success in housing, connectivity, sustainability, workforce development, and more. The plan identifies several large sites with potential for transformative growth. Our proposal gives particular attention to Suffolk Downs, a single-owner, transit-friendly, 160-acre open canvas that is close to the waterfront, the airport, and downtown. The enclosed book details the possibilities for innovative development at this and other locations.

No other city can match the combinations of head and heart, pride and openness, creativity and stability that run through our culture and drive our success. We have a proven track record of bipartisan, cross-sector teamwork among leaders who are committed to growing our economy by these values. We look forward to working alongside your team to deliver a headquarters that brings Amazon's vision to life and expands opportunity for all in our city.

Sincerely,

A handwritten signature in black ink, appearing to read "Martin J. Walsh".

Mayor Martin J. Walsh



## **Governor Charlie Baker Commonwealth of Massachusetts**

Mr. Jeffrey P. Bezos  
Chairman and Chief Executive Officer  
Amazon.com, Inc.  
410 Terry Avenue North  
Seattle, WA 98109-5210

Dear Mr. Bezos,

Over the years, the Commonwealth of Massachusetts has enjoyed Amazon's growing presence and is excited about the prospect of being home to your second North American headquarters.

Massachusetts is a highly educated state; we pride ourselves on a world class education system, from kindergarten through higher education. In the Boston region, alone, there are 75 colleges and universities contributing to a skilled and diverse workforce that has and will continue to offer Amazon a strong talent pipeline. Massachusetts is also a leader in innovation. For two consecutive years, Bloomberg has ranked Massachusetts as the number one state in the country for innovation. Innovation is also evident by the state's top ranking in research and development spending, life sciences employment per capita, venture capital under management, and percentage of workers in science and engineering occupations. Adding to all of that, US News & World Report's designation of Massachusetts as the top overall state provides even further insight into all we have to offer.

The pioneering spirit of Massachusetts is complemented by a competitive tax structure, proactive economic development groups in both the public and private sectors, and communities succeeding in strengthening our local neighborhoods and regional economies. Our businesses, institutions and residents benefit from our political and fiscal stability, with all levels of government committed to a bi-partisan approach to cooperatively build upon a healthy economy and all that we have already achieved.

Our formula of education, innovation, and a stable government and business climate has proven successful for Amazon's impressive growth in Massachusetts, including the Boston region. The City of Boston flourishes as the hub of the region, and, in fact, all of Massachusetts and New England. Boston is a world class city that offers - on its own and draws from its neighbors - a thriving, healthy, and innovative ecosystem that has and can continue to play an increasingly greater role in your company's overall growth and success.

I am excited about the opportunity to discuss HQ2 further. Please do not hesitate to call upon me to do so; you have my personal commitment to marshal all of what Massachusetts has to offer for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles D. Baker".

Charles D. Baker,  
Governor



**Mayor Brian Arrigo  
City of Revere**

As Mayor of the City of Revere, I am excited to propose Suffolk Downs as the ideal site for the development of Amazon's HQ2.

This 161-acre, shovel-ready parcel—five minutes from the airport, ten minutes from downtown, and thirty minutes from the world's greatest colleges and universities—provides Amazon an unmatched opportunity to build a modern campus that embodies the company's vision and values. Size, location and amenities make Suffolk Downs an incomparable site for Amazon's future.

Suffolk Downs has been a valuable contributor to the history and culture of both East Boston and Revere for decades. In its heyday as a horse racing venue, it hosted the legendary Seabiscuit and Whirlaway, as well as the Beatles' only Boston appearance. For 75 years, the venue has served as a major employer in Revere and Boston.

This opportunity, however, envisions Suffolk Down's future, not its past. In a new and dynamic world, the Suffolk Downs site will serve as a revitalized anchor for our city's economy for decades to come.

Boston and Revere have collaborated with the Suffolk Downs owners, HYM Investment Group, to plan the site's redevelopment into a new neighborhood, just a short walk from America's First Public Beach. With the capacity to contain corporate offices, housing, recreational facilities, open space, retail, and nightlife, Suffolk Downs will become an optimal location to live, work and play.

Revere is a diverse and vibrant community, with a storied history and a growing, talented workforce. Revere residents speak over 40 languages and represent waves of immigration from all over the world, including Latin America, Brazil, Italy, Morocco, Cambodia, Germany, and Ireland. Our school system is a model for urban Gateway City public education. And soon, a hub of advanced manufacturing, life sciences and robotics will take root in Revere—indicative of the economic transformation that is already underway in the city.

The City of Revere's public and business sectors are united in this effort. In the pages ahead, we show how we will become an ideal home for an iconic company of the 21st century.

Sincerely,

Mayor Brian Arrigo

**No ifs, ands, or buts about it,  
Boston is the ideal place for Amazon HQ2.  
Just look at what Boston brings to the table.**

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**A perfect, shovel-ready site with a single owner? Yes.**

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**Political leadership? Yes.**

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**Talent base supported by the most educated workforce in America? Yes.**

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**Strong connectivity and transportation infrastructure? Yes.**

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**Is Boston exactly what Amazon is looking for? Yes.**





# Boston Yes!





# Boston. Yes.

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# Your Perfect Match

***“Building on Amazon’s growing regional presence, Boston would be thrilled to welcome Amazon’s second North American headquarters to our city. This is a unique opportunity to explore long-term investments and partnerships that will enhance Amazon’s experience in our city and strengthen Boston’s growing community.”***

— Mayor Martin J. Walsh

Boston is a city on the move. For almost 400 years, Boston has been a city built on big ideas and transformation—the signs of economic progress in the home of American independence are everywhere. When the world is faced with the toughest challenges, when people need bold ideas, when communities need leaders, they look to Boston. Innovation is embedded in Boston’s DNA. From Boston’s world-class researchers, engineers and scientists to our motivation for addressing societal growth, Boston is a city with a passion for creativity, transformation and invention. As the higher education capital of the world, Boston attracts and retains the best and brightest from around the globe and we are proud to be home to the highest concentration of young adults of any of the 25 largest cities in the country. In Boston, our leaders from business, higher education, philanthropy, nonprofits and government work together to advance growth, prosperity, innovation, an unmatched quality of life, and meaningful impacts on our country and the world. In July 2017, we released the first citywide plan in more than fifty years, [Imagine Boston 2030](#). Shaped by more than 15,000 voices, this plan lays the framework and vision for our future. We will guide our growth as Amazon continues to increase its presence in Boston. [With Imagine Boston 2030](#), we are ready to welcome Amazon’s second North American headquarters.



# 4.9 million

MSA Population

# 15 minutes

from Downtown Boston to Logan International Airport

# 5 minutes

from Suffolk Downs in East Boston and Revere to Logan International Airport

# 1,000

Amazon jobs in Cambridge

# 200

Amazon workspaces at WeWork in the Back Bay neighborhood of Boston

# 900

Amazon jobs announced in the Fort Point neighborhood of Boston

## A Thriving MSA. Yes.

The New England City and Town Area (NECTA) is the New England equivalent of a Metropolitan Statistical Area (MSA). The Boston MSA is part of the Boston-Cambridge-Nashua NECTA, comprised of cities and towns across the region. Today, the Boston MSA (Boston) has a population of 4.9 million residents, up from 4.7 million in 2010.<sup>1</sup> The 2016 GDP for the metro area was \$423 billion. The metro GDP has grown at an annual rate of 2.2% since 2010.<sup>2</sup>



# 55%

of Bostonians are Hispanic or non-White<sup>3</sup>

# 48,000

international students attend Boston's higher education institutions<sup>8</sup>

# 29%

of Boston's population is foreign born<sup>4</sup>

# \$4.3 Billion

Immigrants living in Boston contribute \$4.3 billion worth of consumer spending, which supports almost 20,000 jobs<sup>9</sup>

# 100+

countries represented by Boston's foreign born population<sup>5</sup>

# 60

Boston's foreign born population speaks over 60 different languages<sup>6</sup>

# 35%

of the population is between the ages of 20 and 34 years old<sup>10</sup>

# 30%

of people working in Boston are foreign born<sup>7</sup>

## Diverse Population. Yes.

In Boston and Massachusetts, we are proud of our immigrant roots, which help shape our diverse population and create a welcoming hub that embraces all people and cultures. Indeed, as Boston continues to grow, we are committed to “inclusive growth,” meaning every resident has equal access and opportunity to participate in our economy. This full participation will shape our future because Boston thrives when all of its residents thrive. We recognize that Boston has fallen short in the past—including key moments in history from redlining that reinforced racial segregation to the school busing crisis and flawed attempts at reinventing the city through urban renewal. Boston has learned and continues to learn from past actions. As part of the [Resilient Boston](#) strategy, Boston is addressing its most serious shocks and taking a unique approach to strengthen urban resilience through the lens of racial equity. By addressing the divisions of race in Boston, we are choosing to leverage our diversity as a resource to enhance Boston today and in the future.

***“Both McKinsey and Bersin by Deloitte have made the case that inclusive workplaces lead to positive financial outcomes for companies, and Boston has the multi-cultural talent on hand to fuel growth.”***

— Jesse Mermell

President, The Alliance for Business Leadership



# #1

**U.S. City to receive NIH Funding  
for 22 consecutive years<sup>11</sup>**

# 75

**college and universities across Boston<sup>12</sup>**

## Top 3

**hospitals and cancer centers in the world are  
located in Boston, serving as a global leader  
in healthcare, research, and development**

# 21,000+

**students in Boston's Longwood  
Medical and Academic Area<sup>13</sup>**

***"The Longwood Medical and Academic Area represents a vibrant scientific, cultural and academic community, which is not only an integral part of the Boston area's cutting edge innovation community, it would also be inviting to the Amazon culture and workforce."***

**— Marilyn Swartz Lloyd**

President and CEO, Medical Academic and Scientific Community Organization, Inc.



## Excellent Institutions. Yes.

Boston is home to excellent academic and health care institutions. With 75 colleges and universities across the region, the Boston area attracts highly skilled students and researchers from around the world. The region's network of higher learning is closely connected, providing a source for strong partnerships and collaboration with the community.

Boston is also a global leader in healthcare, medical treatment and research and development. Boston's world-renowned healthcare infrastructure includes Massachusetts General Hospital, one of the world's best hospitals, and the Longwood Medical and Academic Area, an epicenter for global institutions of care including top cancer centers, medical schools, hospitals, and research and development centers. The Longwood Medical and Academic Area is an economic engine for Boston and is responsible for \$1.02 billion in NIH funding, or 42% percent of Massachusetts' total. New medical breakthroughs start and succeed in Boston each and every day. Boston's high quality health care institutions add value to companies based in the region, ensuring high quality health care for area residents as well as businesses and their employees.





## Stable Local Government. Yes.

The City of Boston is governed by Mayor Martin J. Walsh and the Boston City Council with the assistance of various departments, agencies, and commissions. Boston has a strong-mayor form of government, with Mayor Walsh serving as Chief Executive Officer for the City, overseeing a \$3.15 billion budget, and managing a Cabinet, local boards, commissions, officers, and departments. The Mayor also appoints the nine-member School Committee, which is the governing body of the Boston Public Schools system. The Boston City Council consists of 13 members; nine members elected to represent geographic districts and four members elected at-large, all serving as the Legislative branch of city government.

As part of the Mayor's Cabinet, the [Mayor's Office of Economic Development](#) was created in 2014 to streamline support for businesses, large and small, in Boston. Mayor Walsh, Governor Baker, and their teams have a track record of working closely together to ensure that Boston is a welcoming place for businesses to grow and thrive.

In neighboring Revere, Mayor Brian M. Arrigo serves as the Chief Executive Officer and oversees the city's \$180

***"We have a new administration in Boston that is proactive in its support of businesses that enrich the community and the lives of people who visit and live here."***

**— Esther Tetreault**

Co-Founder, Trillium Brewing Company

million budget and 1,900 municipal employees. The Mayor also serves as Chair of the seven member Revere School Committee. Mayor Arrigo and his staff respond to resident inquiries and issues regarding all aspects of city government. The Revere City Council consists of eleven members, five elected at large, and six representing wards in the city.



## Stable and Consistent Business Climate. Yes.

Boston is in a strong financial position and is making history. In 2017, Moody's and S&P each assigned Boston with AAA credit ratings for the 4th consecutive year, citing the City's "strong regional economy" and "strong fiscal management." As a result of Boston's careful stewardship of taxpayer resources, we have been able to make targeted and strategic investments that will improve the quality of life and deliver world-class services for Bostonians.

Through successful financial management, the City of Revere is in a very strong financial position. The City utilized technology and innovation to drive government efficiency. The result has led to a AA- municipal bond rating.

***"Boston's business community has a long history of successfully working closely with the city and state as allies united in creating solutions that drive economic development and generate economic opportunity for people and businesses."***

— **James E. Rooney**  
President & CEO, Boston Chamber of Commerce

# 60,000

new jobs in Massachusetts  
from 2014 to 2016<sup>14</sup>

# #1

U.S. City for fostering entrepreneurial  
growth and innovation for  
two consecutive years<sup>16</sup>

# 20,000

new jobs in Boston from 2014 to 2015<sup>15</sup>

# 10%+

high technology industry  
growth annually since 2010<sup>17</sup>

## Companies that have recently relocated or expanded in Boston

Reebok



LogMeIn



cybereason

amazon

OPTUM™

new balance®

redhat

ptc

VERTEX™

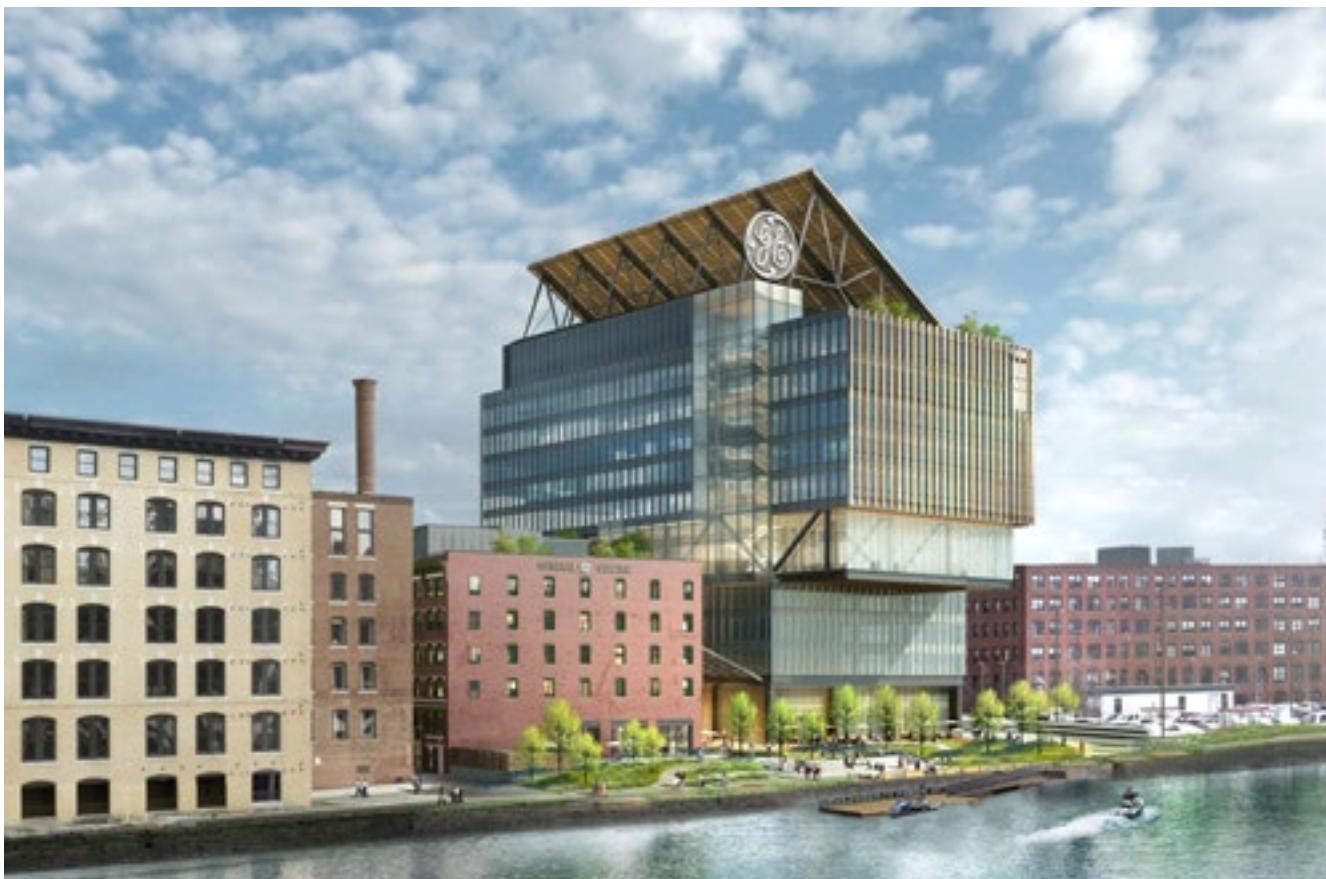
wayfair®

flex

mass  
robotics

CONVERSE®

# In the past three years, Boston has added 16.6 million square feet of development.<sup>16</sup>



## A Strong, Growing Economy. Yes.

Boston's economy is flourishing. The Global Cities Initiative ranked Boston 5th in its 2017 Global Cities Outlook, praising Boston's positive long-term potential across categories including personal well-being, innovation, economics, and governance. In 2016 alone, over \$7.8 billion of development was approved. More than 60,000 new jobs were added in Boston between 2014 to 2016. The annual unemployment rate has also decreased from 6.1% in 2013 to 3.4% in 2016.<sup>18</sup>

With sustained high employment levels, a steadily growing economy, and a wealth of young, motivated talent, Boston is outpacing the nation as an economic powerhouse and cultural trailblazer. As the economy continues to grow, companies are both relocating and expanding their businesses in Boston.

***"We started at the forefront of American invention, and we haven't slowed down."***

— **Tim Rowe**

Founder & CEO, Cambridge Innovation Center, home to the first location for Amazon software engineers outside Seattle

## Robotics. Yes.

Boston is also home to MassRobotics, headquartered in the South Boston Waterfront, serving as an escalator to help create and grow the next generation of robotics and smart connected device companies. Launched in early 2017, MassRobotics was founded by several leading companies including Amazon Robotics, Autodesk, iRobot, and Cambridge Innovation Center. In less than a year, MassRobotics has proven to be an effective resource in supporting Boston companies as well as connecting our local companies to the global robotics ecosystem.

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**Boston is home to the largest growing, global cluster of robotics research and development.**



***“The world-class research institutions, depth of talent, rich robotics eco-system, and the collaborative nature of government, are why we’ve made Boston our home for solving some of the future’s biggest challenges.”***

— **Karl Iagnemma**  
CEO and Co-Founder, NuTonomy

***“I believe data science and AI are key to Amazon’s future, and there is no better place for these skills than the Boston region.”***

— **Mohamad Ali**  
CEO, Carbonite

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**150+**

robotics companies with \$1.9 billion in sales<sup>19</sup>

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**\$200 Million**

private investments in robotics over the past year<sup>20</sup>

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**3,200**

people employed in robotics jobs<sup>21</sup>

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**11**

different robotics markets represented<sup>22</sup>

# Wicked close to every- thing.

**3 Hours**  
Killington, VT



**2 Hours**  
The Berkshires



**3½ Hours**  
New York City





## Recreational Opportunities. Yes.

**1 Hour**

Ferry to Provincetown, MA

**1½ Hours**

Beaches of Cape Cod

**1½ Hours**

Hiking in the Hills of New Hampshire

**2 Hours**

Skiing in Maine

**2 Hours**

Listen to Boston Pops at Tanglewood in the Berkshires

**3½ Hours**

Train to New York City

**4½ Hours**

Montréal, Quebec

**“Moving to Boston means moving to a city with unique neighborhoods and a passionate, innovative, and active community. Boston is a city that moves, and that movement brings the city to life.”**

— Matt O’Toole

Brand President, Reebok

**4,500+**

food service and retail establishments in 2015<sup>23</sup>

**20,172**

hotel rooms in the city of Boston as of January 2017<sup>24</sup>

**100+**

food trucks in Boston

**4,587**

hotel rooms in development, coming to Boston in 2017 and beyond

**Four**

James Beard Award winners in Boston

**500+**

Arts & Culture public events per year

**\$262  
Million**

invested in Boston-based food, restaurant and agricultural startups in the past 4 years

**500+**

pieces of public art throughout Boston

**20+**

breweries

## Exceptional Place to Live. Yes.

Boston is a truly exceptional place to live with something to offer all residents and visitors. While many cities are defined by their skylines, the City is distinguished by its proud, vibrant, and unique neighborhoods. Boston has 20 neighborhood commercial districts, each with its own individual flair and character. More than 11 million annual visitors and residents frequent Newbury Street, Copley Place, and the Prudential Center for shopping.

With 37 titles, Boston is known as “The City of Champions.” We have miles of pathways for exercise and leisure along the Charles River and Jamaica Way. Nearby athletic options include cross-country skiing or golfing at Franklin Park, hiking at the Blue Hills Reservation, and sailing and swimming at 20 regional beaches.

Boston’s diverse restaurants serve up everything from Ethiopian to Japanese to Colombian cuisine. Hundreds of food trucks operate day and night across the city. Almost thirty neighborhood farmers markets are sprinkled

throughout the city. Innovation in food and agricultural technology, including hydroponic farming, point of sale (POS), robotic kitchens, on-demand meal kits, and professional catering is burgeoning, offering opportunities for disrupting this industry. Food startups are also taking off in Boston. Commonwealth Kitchen incubates hundreds of local, authentic food companies while two innovative food coworking spaces, The Food Loft and Branch foods, are successfully creating the largest community of food innovators and entrepreneurs in Boston.

While Boston is perhaps best known for its rich history, it is also full of true arts and culture gems, like the Institute of Contemporary Art, the Museum of Fine Arts, and the Opera House. In 2016, Boston released the first cultural plan, [Boston Creates](#). Rotating public art displays and soundscapes animate the mile-and-a-half long Rose Kennedy Greenway. Meanwhile, the city comes alive during each season with different festivals, concerts, markets and crafts fairs.



# 7,000+ Acres

of public and private open space in Boston<sup>25</sup>

**23%**

city area that is open space<sup>26</sup>

**98%**

of Bostonians are within a ten minute walk of a park or open space<sup>27</sup>

# 5,000 Acres

of parks

# Dog-friendly parks

throughout the city

# 2,100 Acres

parkways, reservations and beaches

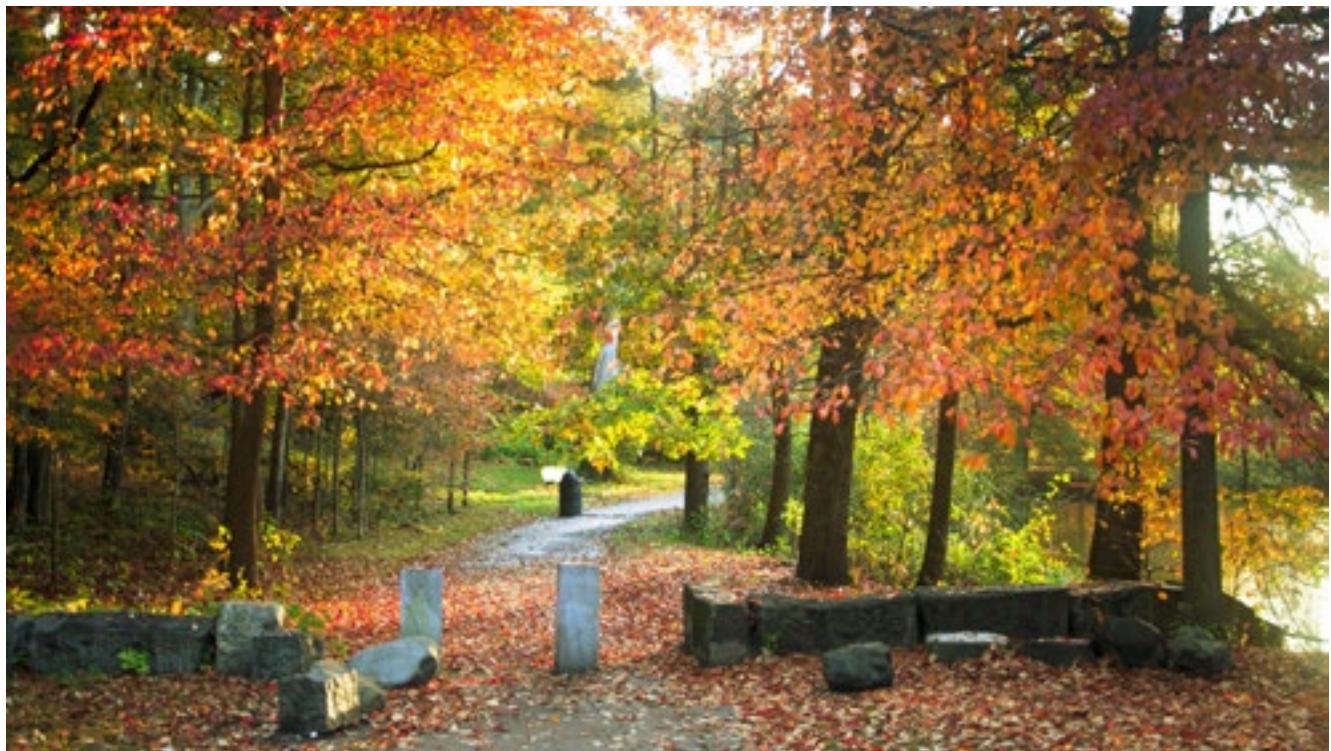
# 38 Miles

of connected Harborwalk

## Open Space. Yes.

Boston offers a wide variety of beautiful open spaces of all shapes and sizes; from marshlands in the Suffolk Downs neighborhood of East Boston and Revere to beaches, parks, playgrounds, athletic fields, gardens and more spread across all neighborhoods of the city. Best of all, these diverse open spaces are highly accessible. Boston earned 39 out of 40 points for park accessibility on the Trust for Public Land's 2017 ParkScore report. 98% of Boston residents live within a ten-minute walk of a park or open space.

Boston has 217 public parks, 65 public squares and over 35,000 street trees. Boston's world famous Emerald Necklace, designed by Frederick Law Olmsted in the 19th century, provides a series of interconnecting parks with over 1,000 acres of gorgeous gardens, greenways and forests. The Emerald Necklace attracts more than one million visitors a year and features the Franklin Park Zoo, Arnold Arboretum, Jamaica Pond, athletic fields, and walking trails. Today, this natural gem still offers busy Bostonians a reprieve from city living.



## Transit Systems. Yes.

From global and regional connections, getting to and around Boston is easier than ever. Boston has an extensive web of rail transit for regional and local access and a robust international airport. Boston's quick and affordable connections from the downtown area to surrounding neighborhoods stretch across the city and include daily subway, bus, commuter rail, and ferry service. Currently 42% of homes in Boston are within a 10 minute walk of a rail station or key bus route stop, Hubway station, or carshare. Boston aspires to increase this share to 100% by 2030.<sup>28</sup> Located in East Boston, Logan International Airport is only 15 minutes from Boston's Financial District, connecting the city to the world with 54 non-stop international routes.

**33%**  
of Boston residents take public transportation to work

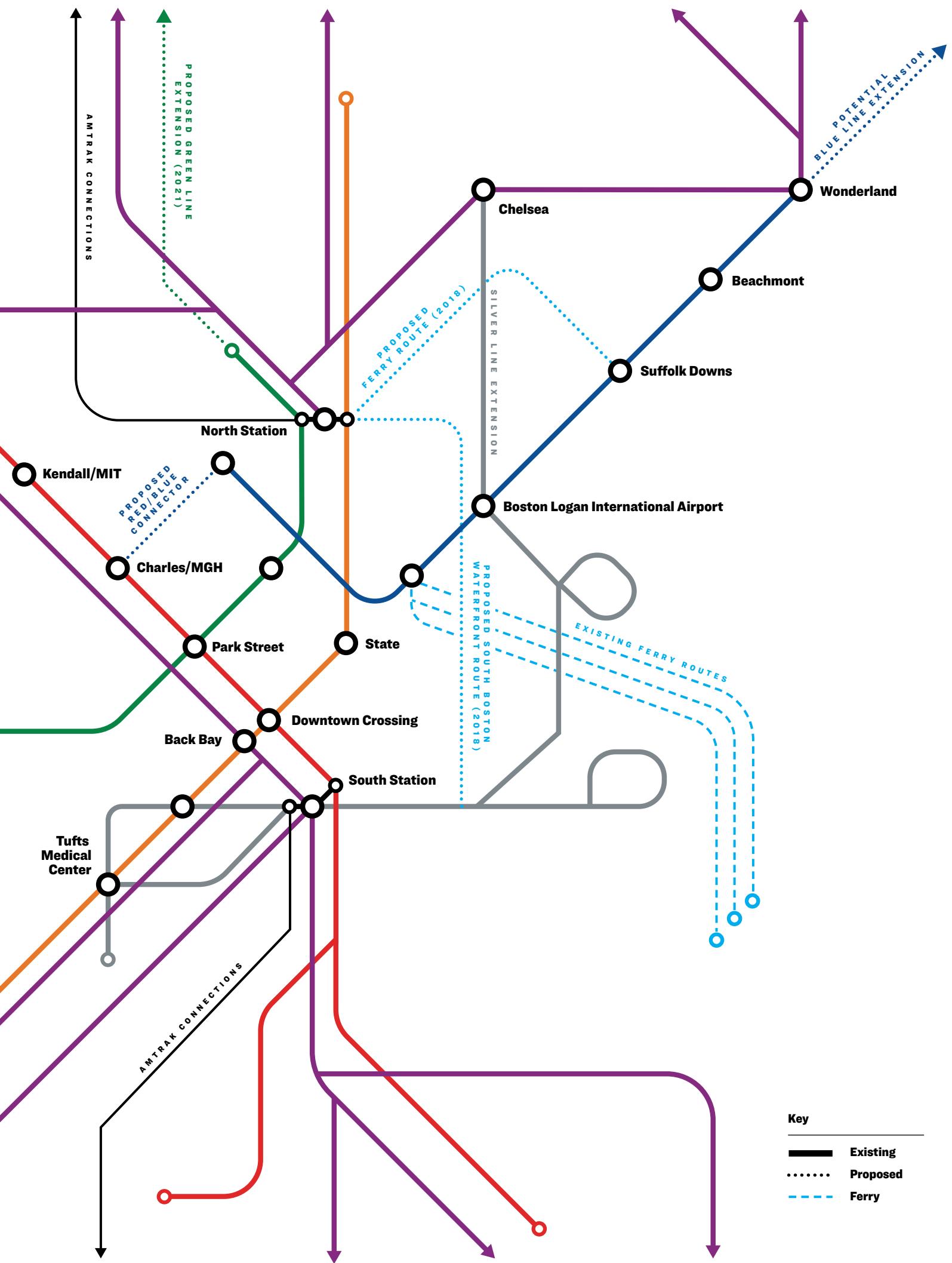
**16%**  
percent commute by walking or bicycling<sup>29</sup>

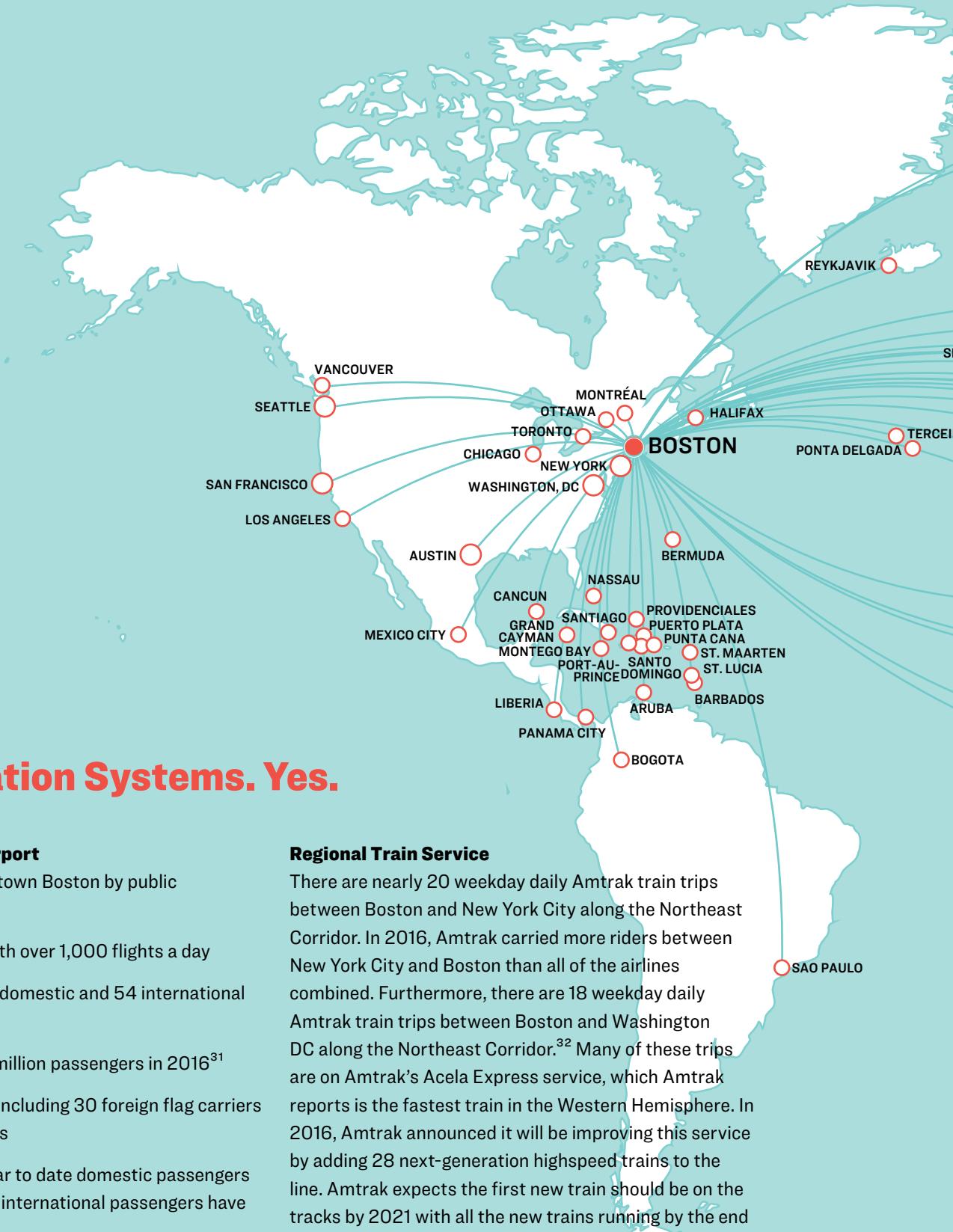
**#3**  
U.S. City for walkability<sup>30</sup>

**14%**  
of Bostonians walk for their daily commute

**1.3 Million+**  
passengers commute everyday by an extensive subway, bus and commuter rail system







## Transportation Systems. Yes.

### Logan International Airport

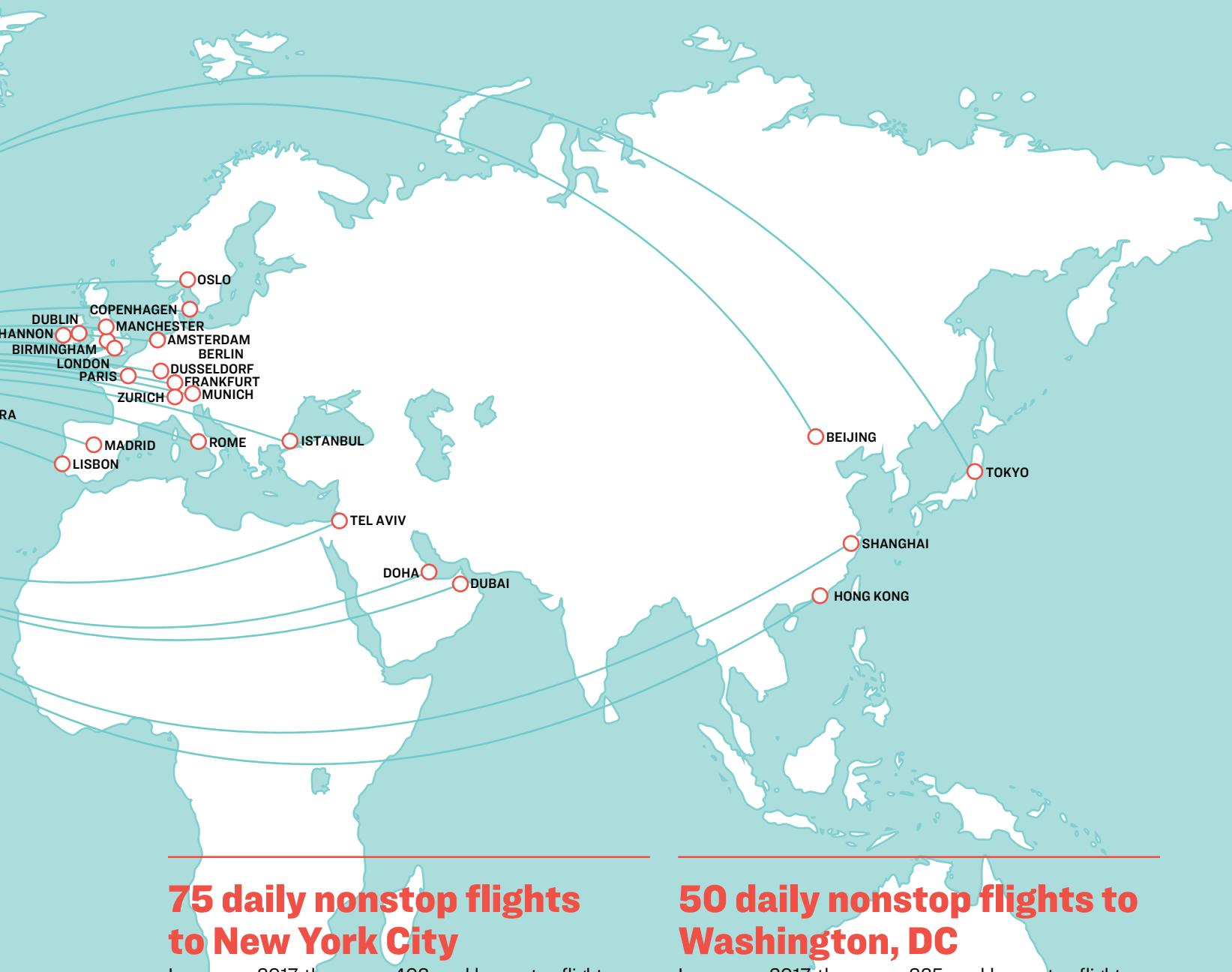
- 15 minutes from downtown Boston by public transportation
- Access to the world with over 1,000 flights a day
- Nonstop service to 75 domestic and 54 international destinations
- Served more than 36 million passengers in 2016<sup>31</sup>
- Served by 56 carriers including 30 foreign flag carriers and 11 low-cost carriers
- Through July 2017, year to date domestic passengers increased by 5% while international passengers have increased by 12.2%
- International non-stop destinations have more than doubled in the last 10 years

### Regional Train Service

There are nearly 20 weekday daily Amtrak train trips between Boston and New York City along the Northeast Corridor. In 2016, Amtrak carried more riders between New York City and Boston than all of the airlines combined. Furthermore, there are 18 weekday daily Amtrak train trips between Boston and Washington DC along the Northeast Corridor.<sup>32</sup> Many of these trips are on Amtrak's Acela Express service, which Amtrak reports is the fastest train in the Western Hemisphere. In 2016, Amtrak announced it will be improving this service by adding 28 next-generation highspeed trains to the line. Amtrak expects the first new train should be on the tracks by 2021 with all the new trains running by the end of 2022.

### Regional Bus Service

The Boston to New York route is served by multiple bus carriers. Together they provide over 70 daily bus trips on a typical weekday between those two cities—some express, others with stops in between. Additionally, there are 22 weekday daily bus trips from Boston to Washington DC on Greyhound, Peter Pan, and Megabus.<sup>33</sup>



## 75 daily nonstop flights to New York City

In summer 2017, there were 403 weekly nonstop flights from Boston to New York City supported by four airlines; the number is projected to increase to 432 by summer 2018.<sup>34</sup> These flights serve JFK, La Guardia, and Newark airports.

## 13+ daily nonstop flights to San Francisco International Airport

In summer 2017, there were 126 weekly nonstop flights from Boston to San Francisco supported by four airlines; the number is projected to increase to 134 by summer 2018.

## 50 daily nonstop flights to Washington, DC

In summer 2017, there were 325 weekly nonstop flights from Boston to Washington, DC supported by five airlines.

## 5+ daily nonstop flights to Seattle

In summer 2017, there were 54 weekly nonstop flights from Boston to Seattle supported by three airlines; the number is projected to increase to 56 by summer 2018.

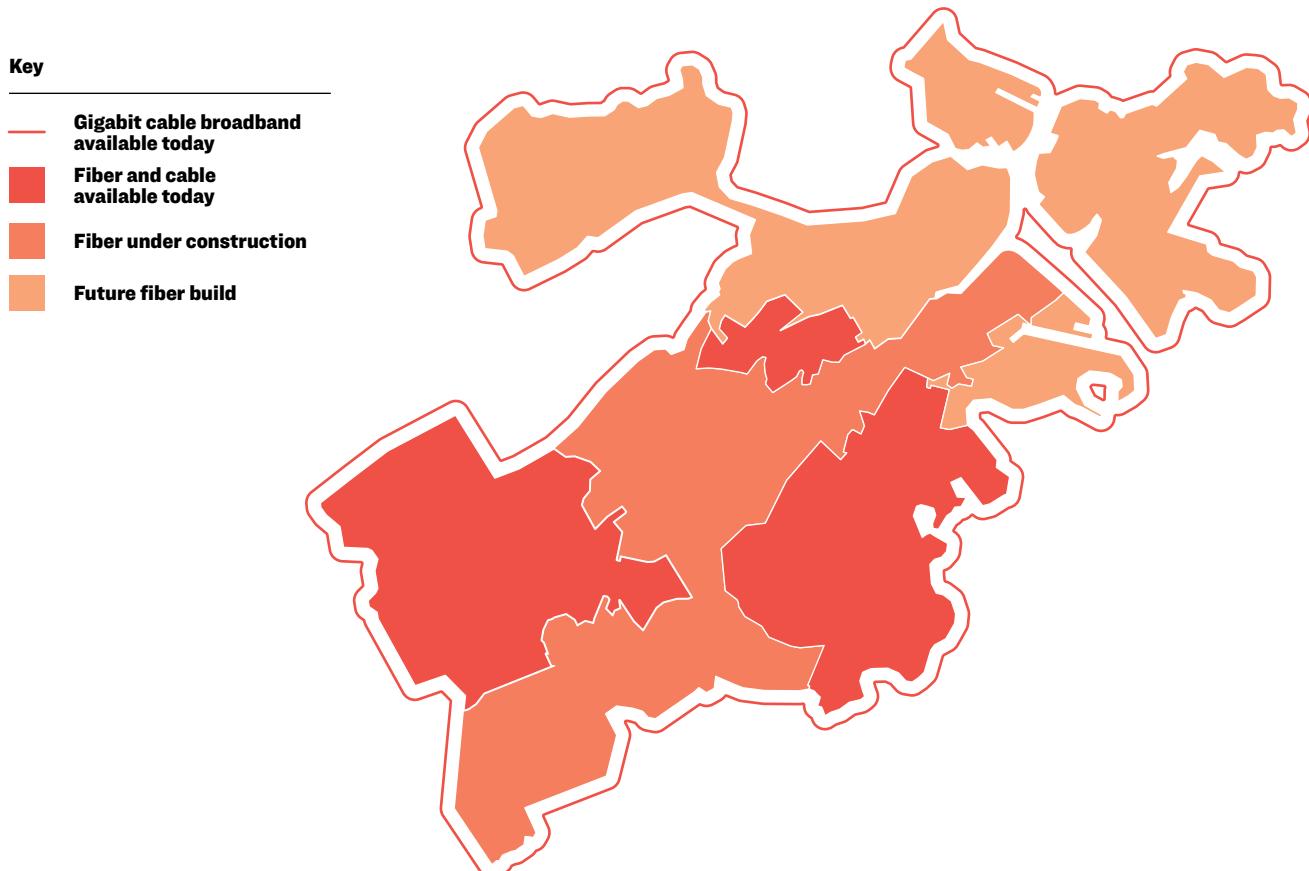
## Fiber. Yes.

# Boston is a leader in fiber connectivity.

**Over 2,500 miles of commercial fiber across the city**

**One of the fastest in the nation for permitting and deploying wireless infrastructure**

### Residential Fiber Connectivity Plan



## Boston is Connected

**We are one of the most connected cities in the world. By 2022, all of our residents and businesses will be served by 1 gig of connection speed.**

## Boston is Competitive

**We have six different residential service providers in Boston. We promote competition so that our residents have affordable options.**

**Right now, 81.6% of households subscribe to high speed Internet in the home—a number we expect to grow as the market gets more competitive.**

## Boston Wants the Best

**We recognize that fiber is fast, so we embrace it. We now have 2,500 miles of commercial fiber across the city, including 175 miles of city-owned conduit available for private use.**

## Boston Works Quickly

**We are among the fastest in the nation for permitting and deploying wireless infrastructure. We're working to get DAS and small cell antennas installed as efficiently as possible to extend the city's coverage.**



# #1

**U.S. City for energy efficiency, since 2013,  
by the American Council for an Energy-  
Efficiency Economy (ACEEE)**

# #1

**U.S. State for energy efficiency, seven  
years in a row by ACEEE**

# 50,700

**Clean energy jobs across the Boston and  
Northeast Region of Massachusetts<sup>35</sup>**

# 25% Reduction

**Boston's Climate Action Plan sets aggressive carbon  
reduction targets to reduce greenhouse gas emissions  
by 25% by 2020 and achieve carbon-neutrality by 2050**

# #2

**U.S. State for solar jobs<sup>36</sup>**

# #6

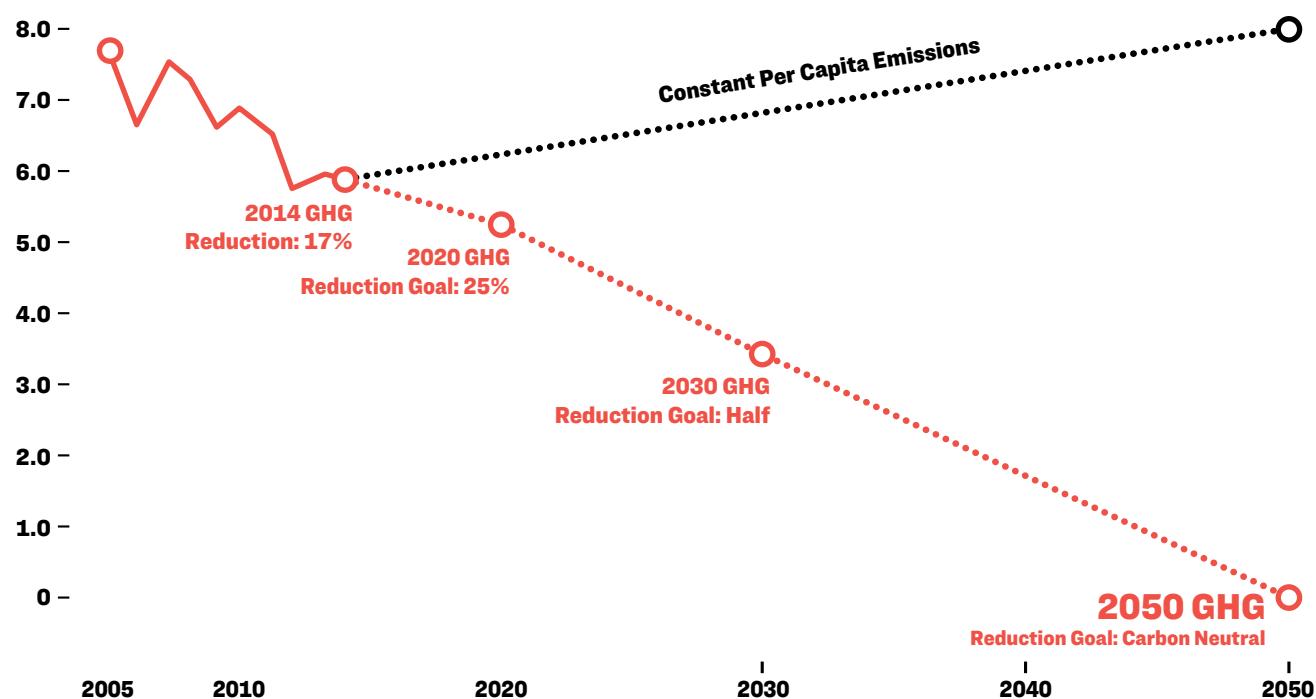
**U.S. State for clean energy technology<sup>37</sup>**



## Boston is a Global Leader in Sustainability. Yes.

Boston is globally recognized for its commitment to sustainability and leadership in climate action. In 2017, Boston will showcase its green building leadership when it hosts Greenbuild, the world's largest conference and expo dedicated to green building. In 2018, Boston is also set to host an international climate summit. Mayor Walsh is co-chair of the Climate Mayors Network, comprised of more than 300 U.S. mayors, representing 62 million Americans, working together to strengthen local efforts for reducing greenhouse gas emissions and supporting efforts for binding federal and global-level policy making. Mayor Walsh is currently the North American Co-Chair of the Steering Committee for C40 Cities Climate Leadership Group, a network of the world's megacities committed to addressing climate change.

### GHG Emissions (MT CO<sub>2</sub>) (in millions)



# 80%

of Boston's goal to create 53,000 new units of housing by 2030 have been built, permitted or planned

# 22,000

units have been built or are under construction<sup>38</sup>

# 25,300

additional housing units are in the pipeline

# 1 in 5

households in Boston are affordable, making Boston a national leader

## Housing. Yes.

Boston's rapid growth is creating a high demand for housing, resulting in price increases that affect Bostonians of all incomes. To address this challenge, the City of Boston released [Housing a Changing City Plan](#) in 2014, setting a goal to add 53,000 new units of housing by 2030. Today, 80% of this projected number housing units has been built, permitted or planned.

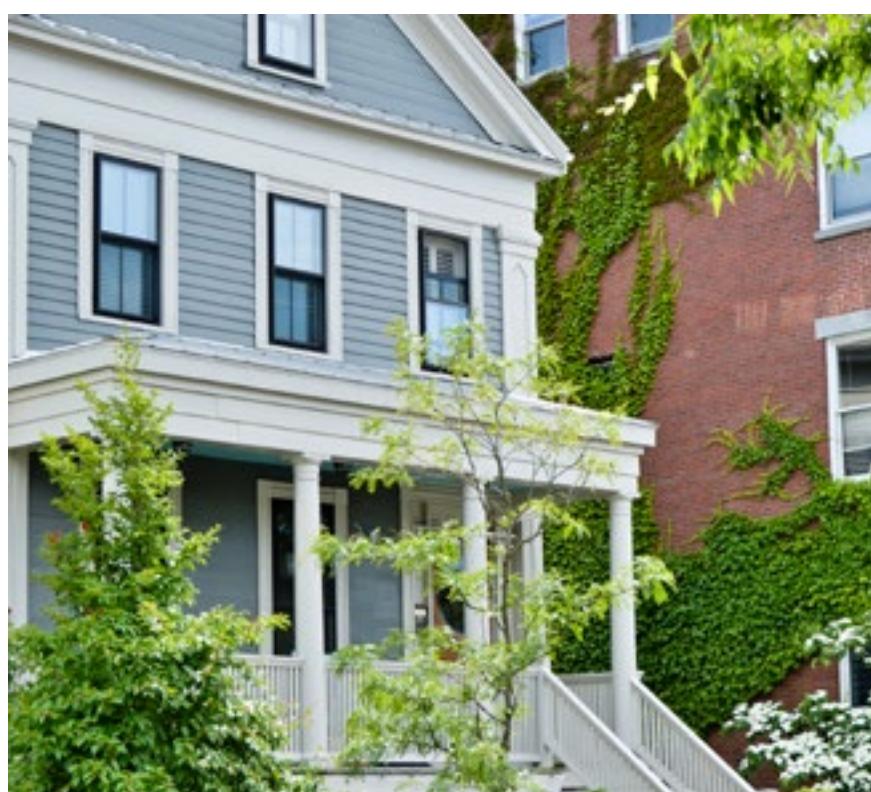
Current building efforts demonstrate Boston's long-term commitment to housing affordability, for Bostonians' diverse needs; currently one in every five units of housing in Boston has a deed restriction on it, meaning that it is protected from the changes in the market. In addition, Boston is proactively encouraging housing growth that reduces pressure on existing neighborhoods and is implementing anti-displacement policies to protect existing communities.

We are incorporating innovation in our housing approach, too. Mayor Walsh has created the nation's first [Housing Innovation Lab](#) and [Office of Housing Stability](#) to ensure that as we grow, we are doing so innovatively and responsibly. Boston's team of New Urban Mechanics are constantly working to create pilots for funding mechanisms, housing options, and cost reducing mechanisms for both building, renting, owning, and providing creative solutions such as Additional Dwelling Units (ADUs), micro-homes, and a student to elderly matching program. Boston's thriving housing market will continue to evolve and we've put forth mechanisms to ensure flexibility and innovation with our growth.

We are also committed to partnering with neighboring municipalities to identify and consider regional solutions to housing challenges. For example, Revere, a city adjacent to Boston, is among the most affordable cities in the area. The northern tier of the Boston metropolitan area also includes Chelsea and Lynn; together these cities create a regional cluster for residential options and opportunities. Collectively, the municipalities of Revere, Winthrop, Chelsea, Everett, Malden, Saugus, and Lynn—communities accessible by bus or train into Boston—plan or project over 8,900 units of housing.

### Plan to End Veteran and Chronic Homelessness

Boston's Way Home, the [City's action plan to end veteran and chronic homelessness](#), has redesigned the way Boston offers services to homeless individuals. Rather than counting on shelter as the solution to the issue, Boston has moved toward a housing-first model, where an individual's entrance into the shelter system is also their entrance to a path toward permanent, stable housing. In January 2016, Mayor Walsh announced Boston ended chronic veteran homelessness; to date, nearly 850 homeless veterans have been housed. In 2016, the City scaled up its efforts to end chronic homelessness, and 391 chronically homeless individuals have been housed since January of 2016. Through investments in housing, technology and system redesign, Boston is on track to meet its goal of ending chronic homelessness by 2018.



**Boston's cost of living is comparable to Seattle's and considerably lower than other coastal peers such as the Bay Area, New York, Los Angeles and Washington DC.**<sup>39</sup>

**5.15%**

State Personal Income Tax\*

**6.25%**

State Sales Tax

**0%**

City income tax

**#19 out of 120**

Global Cities for city competitiveness based on its effective ability to attract capital, businesses, talent, and visitors<sup>40</sup>

## Livable City. Yes.

The cost of living and doing business in Boston compares well to other major cities. Boston's cost of living is comparable to Seattle's and considerably lower than other coastal peers such as the Bay Area, New York, Los Angeles and Washington DC. According to KPMG's Total Tax Index, Boston ranks in 23rd out of 51 international cities, ahead of Seattle.<sup>41</sup> Boston's commercial property-tax rate is \$26.81 per thousand dollars of value. For Massachusetts, business taxes are 8% of net income.<sup>42</sup> The overall level of business taxation in Massachusetts is lower than in most other states, according to a study by Ernst & Young for the Council on State Taxation. Massachusetts sales tax rate is 6.25%; food, clothing, sales of periodicals, and admission sales are exempt. The income tax rate is 5.1% on both earned income and unearned income; certain capital gains are taxed at 12%.<sup>43</sup>



# 1 of 10

**U.S. Cities recognized by the White House in making significant strides in community policing**

**↓ 52%**

**Serious crime rate has dropped from 2000 to 2015**

**↓ 45%**

**Violent crime has decreased since 2000**

**↓ 54%**

**Property crime has decreased since 2000**

**↓ 36%**

**decrease in arrests since 2014**

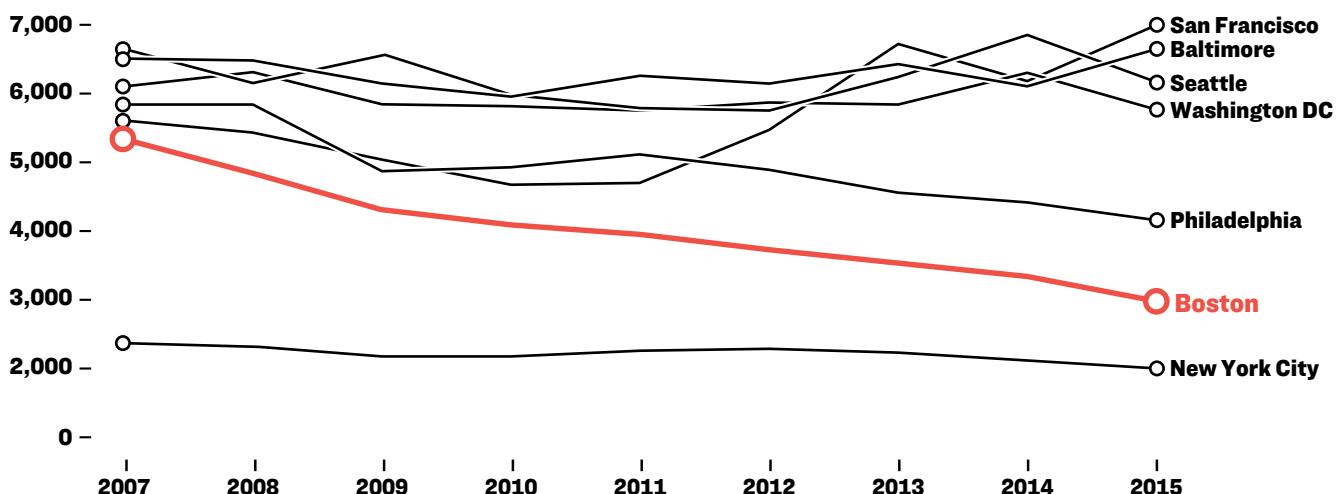


## Committed to Public Safety. Yes.

The Boston Police Department's community policing approach is a national model, recognized in 2015 by the White House as 1 of 10 cities that have made significant improvements in community policing. The Boston Police Department "prioritizes relationships with youth and the community as the key to building trust and creating safe and thriving neighborhoods."<sup>44</sup>

Boston's crime rate has declined; in 2015 it was half of what it was in 2000.<sup>45</sup> Boston's crime rate is the fourth lowest rate among 34 comparable cities.

### Crimes per 100,000 Residents





# Your Hub of Skilled Talent

***“The greater Boston region is an ideal location for Amazon to create its second corporate headquarters, with tremendous opportunities for technological advancement. MIT has a long-standing tradition of working productively with industry, and we look forward to strengthening our existing relationships with Amazon. I believe that your search presents Amazon and the region a unique opportunity to build a more exciting future together. MIT wants to play a major role.”***

— **L. Rafael Reif**  
President, MIT

Boston boasts a highly-experienced workforce which is both trained and experienced in the skills Amazon needs as it continues to grow. As the epicenter of world-class higher education, the region is home to 75 institutions of higher learning with a collective enrollment of 300,000 students. Boston's workforce is as diverse as it is talented with a foreign born population representing over 100 countries. Our strong network of public, private and higher education partners are passionately committed to growing the talent pipeline and connecting these workers to the businesses that need them, a proven decision driver for global companies choosing to grow their business in Boston.



# #1

Boston is the largest employment center in the New England region

# 52.1%

of the Boston region's labor force holds a Bachelor's degree or higher<sup>3</sup>

# 757,000

jobs in the city of Boston<sup>1</sup>

# 25%

increase in regional residents with degrees in computers, mathematics, and statistics since 2010<sup>4</sup>

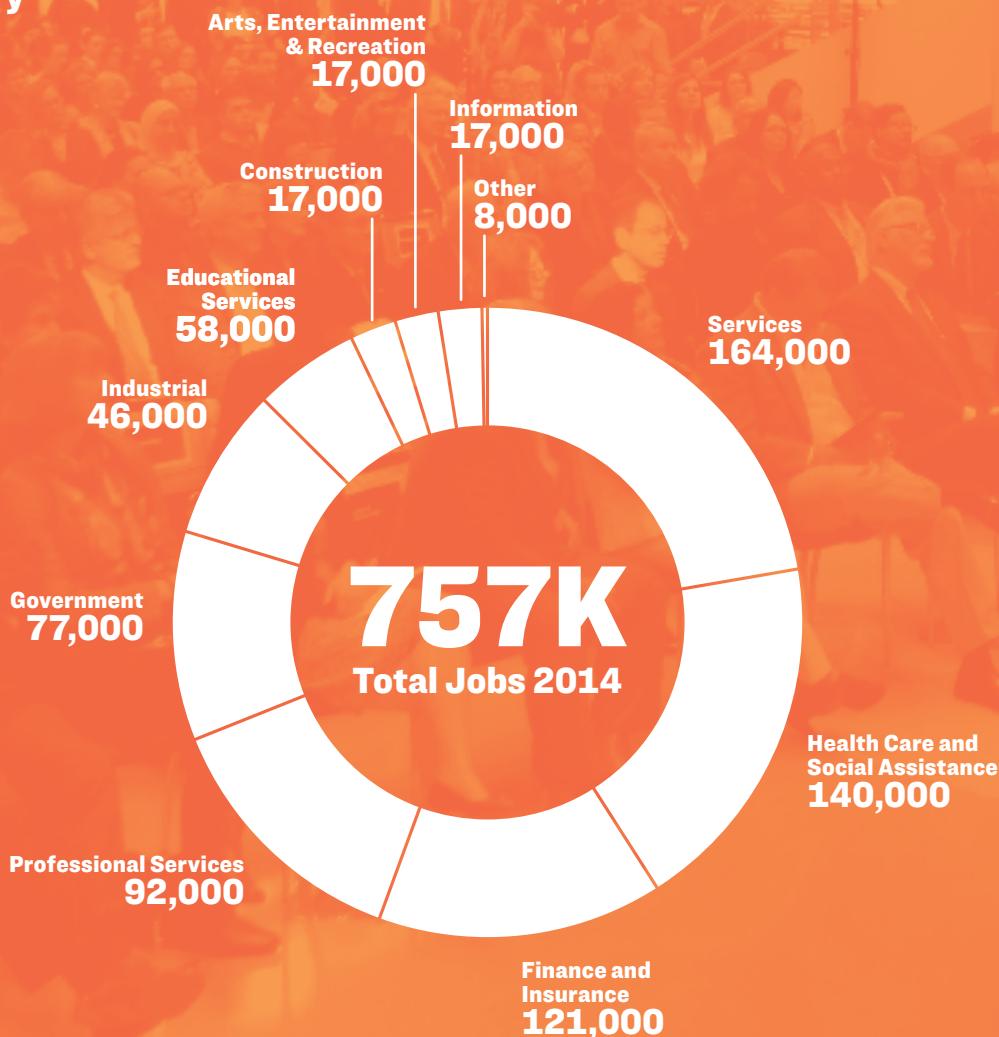
# 133,660

workers in computer and mathematical occupations in the region<sup>2</sup>

# 300,000

students enrolled in colleges and universities, annually

## Jobs by Industry



## Robust Labor Force. Yes.

Boston's labor market is strong and growing at its fastest rate in almost 20 years.<sup>5</sup> As New England's largest employment center with almost 757,000 jobs, Boston draws talent from its own residents and neighboring communities. More than half of the workers in the regional labor force have a Bachelor's degree or higher, and degrees in computers, mathematics, and statistics are up 25% since 2010.<sup>6</sup> The Boston metropolitan region ranks 7th among large metropolitan areas with 134,000 workers in computer and mathematical occupations, earning a median annual wage of \$95,000.<sup>7</sup> The supply of educated workers in Boston is replenished each year with graduates of Boston's colleges and universities, as well as people who move to Boston each year for work. People come from all over the country and the world to study in Boston, and Boston employers are able to attract and utilize students and graduates of our world class educational institutions.

Boston's labor market is also comprised of workers and job seekers from diverse backgrounds.<sup>8</sup> The foreign born population accounts for 30% of Boston's resident labor force and 29.5% of the people working in Boston.<sup>9</sup> Nearly 48,000 international students attend Boston's higher education institutions, annually,<sup>10</sup> and 24% of the undergraduate and graduate students living in Boston are foreign born.<sup>11</sup>



# 7th highest

number of workers employed in computer and mathematical occupations amongst 34 comparable metropolitan areas<sup>12</sup>

# 221,280

workers employed in management positions<sup>13</sup>

# 61,210

workers in software development<sup>14</sup>

# 65,790

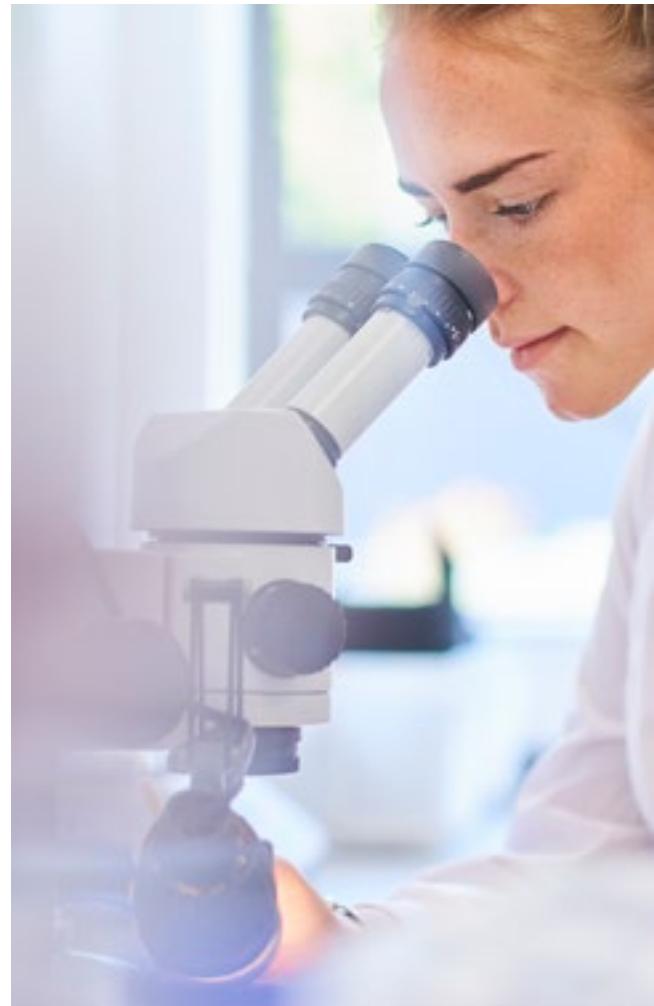
workers in top executive management roles<sup>15</sup>

## Labor Productivity



## Experienced Labor Force. Yes.

Boston boasts a robust, highly-educated workforce that has the necessary skills and levels of experience to bolster Amazon's talent pipeline. Boston is home to the 7th highest number of workers employed in computer and mathematical occupations amongst 34 comparable MSAs, with 133,660 workers.



### Employment in Key Occupations in the Boston MSA

Key Occupations	Employees Working in Boston MSA	Median Annual Wage
Software Developers, Applications	30,760	\$107,030
Software Developers, Systems Software	26,880	\$114,260
Web Developers	3,570	\$79,480
Management	221,280	\$121,740
Top Executives	65,790	N/A
Business and Finance Operations	169,270	\$76,900
Legal Occupations	25,910	\$106,900
Office and Administrative Support Occupations	385,060	\$43,310

# Programs that Advance Boston's Tech Talent Pipeline for Today and for the Future

## TechHire Boston

In 2016, SkillWorks and the Boston Private Industry Council (PIC) in partnership with the City of Boston launched TechHire Boston, to connect more people to IT jobs in the future. In 2017, the City of Boston announced \$1 million of investment in the tech talent pipeline, followed by the Boston Foundation's investment of \$10 million over five years for training and support in several growth industries, including tech.

## TechGen

Managed by the New England Venture Capital Association (NEVCA), TechGen creates a pipeline between students and employers in the Innovation Economy through a digital platform for students and employers to create “profiles” and match with one another.

## Hack.Diversity

Launched as a pilot in late 2016 with plans to scale up, Hack.Diversity provides internships, mentoring, and job placement opportunities for students of color from Bunker Hill Community College, UMass Boston, Year Up, Resilient Coders, and Worcester Polytechnic Institute. In its first year, Carbonite, Data Xu, Hubspot, Vertex, and Wayfair participated.

## Tech Apprentice Program

The Tech Apprentice Program is a seven-week internship experience at local companies for technology-skilled high school juniors and seniors from Boston. The program is part of the Mayor's Summer Jobs Program, and is managed by the Boston Private Industry Council (PIC) and with the support from the Boston Public Schools.

## The STEM Starter Academy

The STEM Starter Academy (SSA) strengthens and expands STEM programming in Massachusetts' 15 community colleges, enhances retention, and helps connect students with internship and employment opportunities.

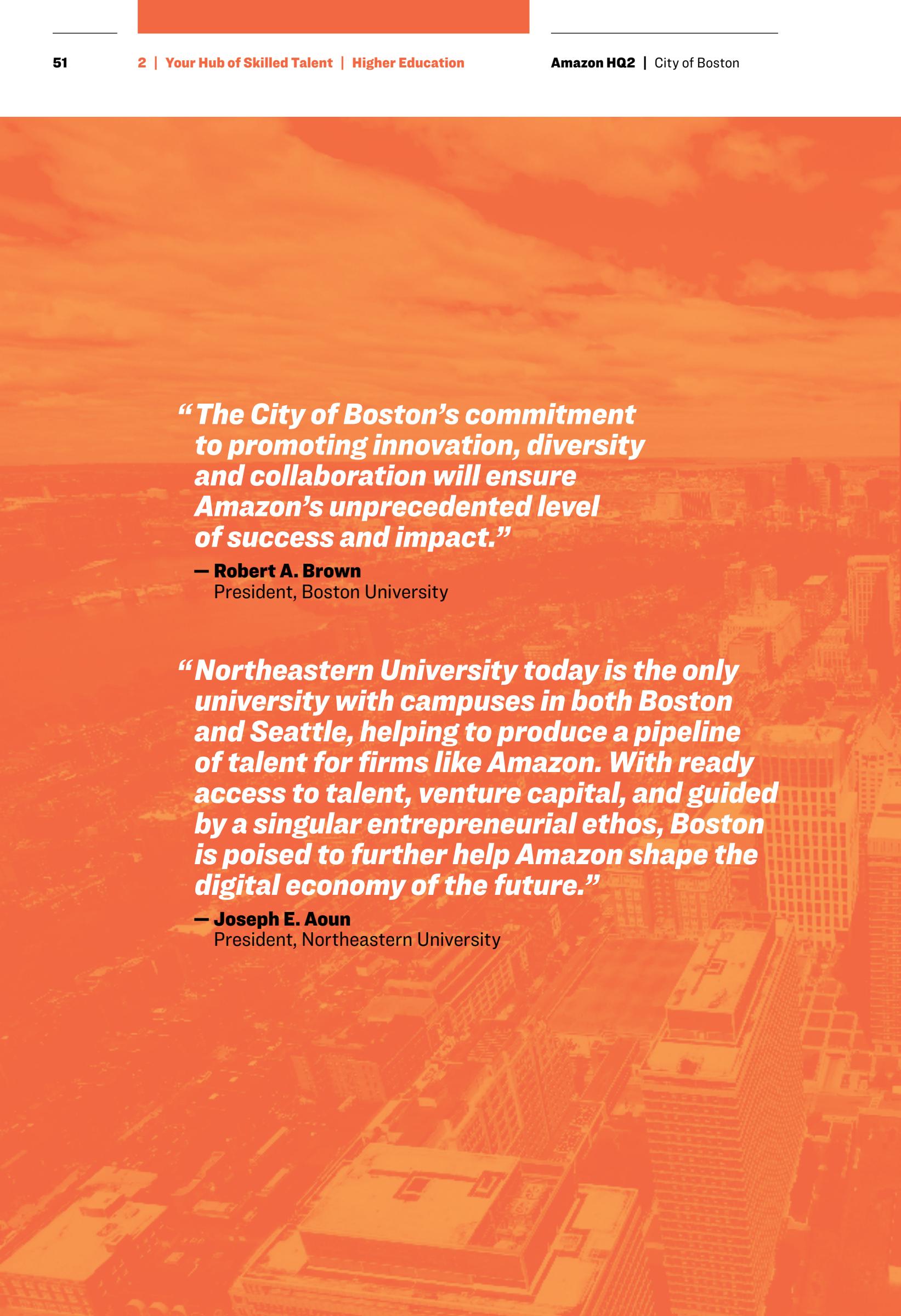


## Ability to Attract Top Talent. Yes.

Boston is a prime location for attracting top talent with close proximity to a strong labor force and leading higher education institutions. Boston has one of the highest job densities of any U.S. city, both in terms of jobs per square mile and jobs per resident, making connectivity to job opportunities very attractive for talent.<sup>16</sup> Boston's business community also affirms an ease in attracting top talent, citing the state's highly skilled workforce as the number one advantage of doing business in Massachusetts.<sup>17</sup> The Boston K-12 school system and its wide network of community partners is also dedicated to fostering a robust talent pipeline across industries through various investments and programming such as computer science, coding classes, youth employment strategies, career coaching, development, and mentoring, and more.

***“A well-educated work force and the promising pipeline of exceptional, highly-skilled, and nimble labor are particular hallmarks of our region.”***

— **Drew Gilpin Faust**  
President, Harvard University

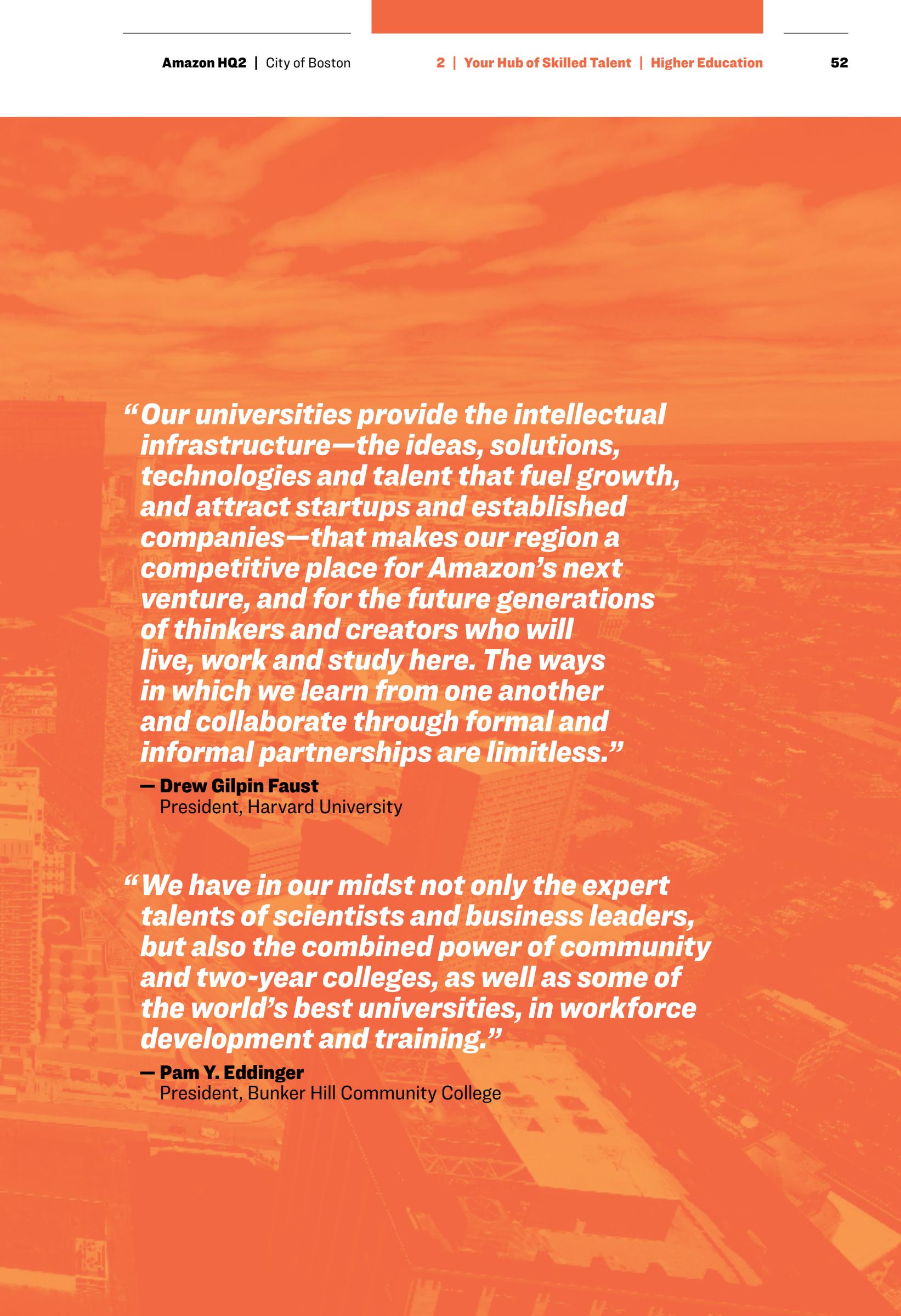
The background of the page is a photograph of a city skyline at sunset. The sky is filled with warm, orange and yellow hues. In the foreground, the tops of buildings are visible, creating a sense of depth. The overall atmosphere is bright and optimistic.

***“The City of Boston’s commitment to promoting innovation, diversity and collaboration will ensure Amazon’s unprecedented level of success and impact.”***

— **Robert A. Brown**  
President, Boston University

***“Northeastern University today is the only university with campuses in both Boston and Seattle, helping to produce a pipeline of talent for firms like Amazon. With ready access to talent, venture capital, and guided by a singular entrepreneurial ethos, Boston is poised to further help Amazon shape the digital economy of the future.”***

— **Joseph E. Aoun**  
President, Northeastern University

A large, semi-transparent orange rectangular overlay covers the background image, which is an aerial view of a city skyline. In the foreground, there are industrial buildings and a bridge. The text is overlaid on this background.

**“Our universities provide the intellectual infrastructure—the ideas, solutions, technologies and talent that fuel growth, and attract startups and established companies—that makes our region a competitive place for Amazon’s next venture, and for the future generations of thinkers and creators who will live, work and study here. The ways in which we learn from one another and collaborate through formal and informal partnerships are limitless.”**

— **Drew Gilpin Faust**  
President, Harvard University

**“We have in our midst not only the expert talents of scientists and business leaders, but also the combined power of community and two-year colleges, as well as some of the world’s best universities, in workforce development and training.”**

— **Pam Y. Eddinger**  
President, Bunker Hill Community College



# Best and Brightest.

***“We are actively engaged in shaping a regional environment where innovators and companies succeed in translating inventions from the lab to commercial products, faster and more efficiently. We are rapidly advancing robotics, artificial intelligence, the internet of things, and other areas of technology that are important to Amazon.”***

— L. Rafael Reif  
President, MIT

BOSTON COLLEGE



WPI



BABSON



Olin College  
of Engineering



## Collaboration with Higher Ed. Yes.

### Massachusetts Institute of Technology

The Massachusetts Institute of Technology is a world-renowned magnet for talent, attracting people from all over the world to its academic programs and research labs. Once they're in Boston, they tend to stay—and act as one of the most important forces in the Boston economy. The engineers, scientists, and technologists who come to MIT collaborate frequently with their counterparts at many of Boston's universities and go on to work at local hospitals, engineering firms, biotech or technology companies, create new ventures of their own, in every sector of the marketplace. MIT's research programs include numerous partnerships and collaborations in the fields of artificial intelligence and machine learning, robotics, nanotechnology, manufacturing, the Internet of Things, quantum engineering, manufacturing, and rich educational and workforce development programs.

#### Programs and Potential Creative Partnerships:

Computer Science and Artificial Intelligence Laboratory; Institute for Data, Systems, and Society; Operations Research Center; Institute for Medical Engineering and Science; Robust Robotics Group; Robot Locomotion Group; Biomimetic Robotics Lab; MIT.nano; Manufacturing USA Institutes; The Engine; High-Performance Computing Center; Broad Institute; Consortia for Improving Medicine with Innovation and Technology; Woods Hole Oceanographic Institute; MIT Media Lab Cities Partnerships; MIT Industrial Liaison Program; Tata Center for Technology + Design; MIT Collaborative Initiatives; Leaders for Global Operations; edX; Sandbox Innovation Program; MITES program; Deshpande Center for Technological Innovation; Office of Engineering Outreach Programs; Saturday Engineering Enrichment and Discovery; MIT's Office of Digital Learning; MIT Edgerton Center; 2014 Institute-Wide Task Force Report on the Future of MIT Education; and Boston STEM week.

### Harvard University

Home to the John A. Paulson School of Engineering and Applied Sciences, a top tier engineering school, and Harvard Business School, the #1 business school in the country. Harvard University is devoted to excellence in teaching, learning, and research, and to developing leaders in many disciplines who make a difference globally. With 22,000 matriculated students at Harvard College and its 12 graduate and professional schools, Harvard's cross-disciplinary programs train and educate engineers, mathematicians, and computer scientists allowing them to make immediate contributions in industry.

#### Programs and Creative Partnerships:

Harvard Robotics; Center for Integrated Quantum Materials; Center for Nanoscale Systems; Privacy Tools Project; EconCS Group; SEAS Computer Science Programs; The Digital Literacy Project; Tech Savvy and SET; Girls Who Code; Harvard Education Portal; The Harvard Data Science Initiative; Office of Technology Development; Harvard i-Lab; Pagliuca Life Lab; and Launch Lab.

### Northeastern University

Northeastern is the #1 ranked university in the U.S for its career services,<sup>18</sup> and is the only university with campuses in both Boston and Seattle. More than 500 Northeastern students have completed full-time six-month internships at Amazon during the last five years. In Boston and Seattle, Northeastern is helping to produce a pipeline of talent for firms like Amazon, minting some 5,000 graduates each year in computer science, engineering, business administration, and science.

#### Programs and Potential Creative Partnerships:

Kostas Research Institute; Customized Learning Partnerships; IDEA; Amazon Web Services Academy; ALIGN, Discovery networks; and Northeastern 2025.

### Boston University's College of Engineering

BU's College of Engineering offers 13 different programs, including electrical and computer engineering, which is ranked 15th in the nation among private graduate programs, and systems engineering.<sup>19</sup>

#### Programs and Potential Creative Partnerships:

Questrom's Master of Science in Management Studies; Rafik B. Hariri Institute for Computing and Computational Science & Engineering; Rajen Kilachand Center for Integrated Life Sciences & Engineering; Boston Scholars Program; Innovate@BU; EPIC, and CARB-X.

### Wentworth Institute of Technology

Wentworth Institute of Technology offers career-focused education through 17 bachelor's degree programs in areas such as applied mathematics, architecture, business management, computer science, computer networking, construction management, design, and engineering.

The Institute also offers master's degrees in applied computer science, architecture, civil engineering, construction management, facility management, and technology management.

#### Programs and Potential Creative Partnerships:

Boston Pipeline Program; RAMP and ACCELERATE.

### Bentley University

Bentley is praised for having the 10th and 12th best undergraduate business programs by Bloomberg BusinessWeek and Money Magazine, respectively. The Princeton Review calls Bentley's internship opportunities the top in the country, and its career services are rated #2 in the country.<sup>20</sup>

#### Programs and Potential Creative Partnerships:

The Center for Marketing Technology.

### Simmons College

Simmons has one of the top 25 entrepreneurship programs in the country and the #1 MBA for women business students.<sup>21</sup>

#### Programs and Potential Creative Partnerships:

PLAN; and Boston Course.

### University of Massachusetts Boston

UMass Boston ranked 52nd on Reuter's Most Innovative Universities in the World list. It is the 3rd largest research university in Massachusetts and 4th largest in New England.<sup>22</sup>

#### Programs and Potential Creative Partnerships:

Broadening Advanced Technological Education Connections; The Center of Science and Mathematics in Context; Success Boston; and Sustainable Solutions Lab.

### Berklee College of Music

With a diverse and talented student body and alumni who have collectively won more than 250 Grammys and Latin Grammys, Boston's Berklee College of Music is the world's premier learning lab for the music of today and tomorrow.

#### Programs and Potential Creative Partnerships:

Open Music Initiative; Joint degree programs; Berklee Online; and Institute for Creative Entrepreneurship.

### Emerson College

With a diverse and talented student body representing 57 countries, Emerson College, energized by engagement with the creative life of Boston, Los Angeles, and the Netherlands, is internationally recognized as the nation's premier institution of higher learning devoted to communication and the arts.

#### Programs and Potential Creative Partnerships:

Engagement Lab; Emerson Experience in Entrepreneurship; and Business of Creative Enterprises.

### Emmanuel College

Located in the Longwood Medical and Academic Area Emanuel College provides unique opportunities for collaboration with some of the world's top names in biomedical discovery. Emmanuel possesses particular strength in the sciences, competing with the country's top liberal arts institutions for federal research funds.

#### Programs and Potential Creative Partnerships:

Jean Yawkey Center for Community Leadership; Center for Science Education; The Carolyn A. Lynch Institute and The Urban Food Project.

### Benjamin Franklin Institute of Technology

BFIT offers two-year programs in Computer Technology and Technology Business and Management. BFIT's Robotics and Automation curriculum, designed in consultation with Amazon Robotics is a proven talent pipeline for Amazon.

#### Programs and Potential Creative Partnerships:

Amazon Robotics.

### Bunker Hill Community College

Bunker Hill offers a transfer program in Electrical Engineering and two-year programs in Business Administration and Computer Information Technology.

#### Programs and Potential Creative Partnerships:

Boston's Tuition-Free Community College Program

### Roxbury Community College

Roxbury offers an Engineering program, four business programs (including Accounting), and four computer science programs (including web technologies).

#### Programs and Potential Creative Partnerships:

Boston's Tuition-Free Community College Program



**Boston area colleges  
and universities  
conferred the following  
relevant degrees from  
2014–2016:**

---

**16,145 degrees in Engineering**

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**10,537 degrees in Computer and  
Information Sciences and Support  
Services**

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**2,739 degrees in Mathematics and  
Statistics**

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**53,818 degrees in Business  
Management, Marketing, and  
Related Support Services**

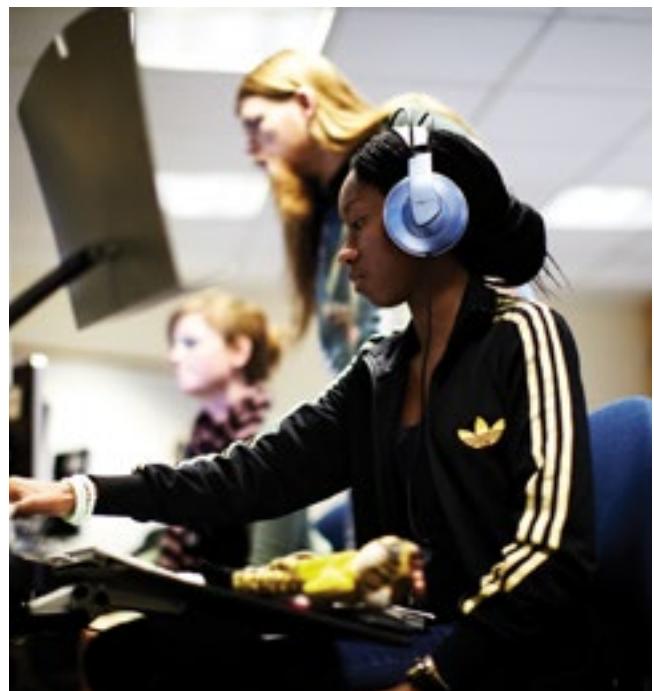
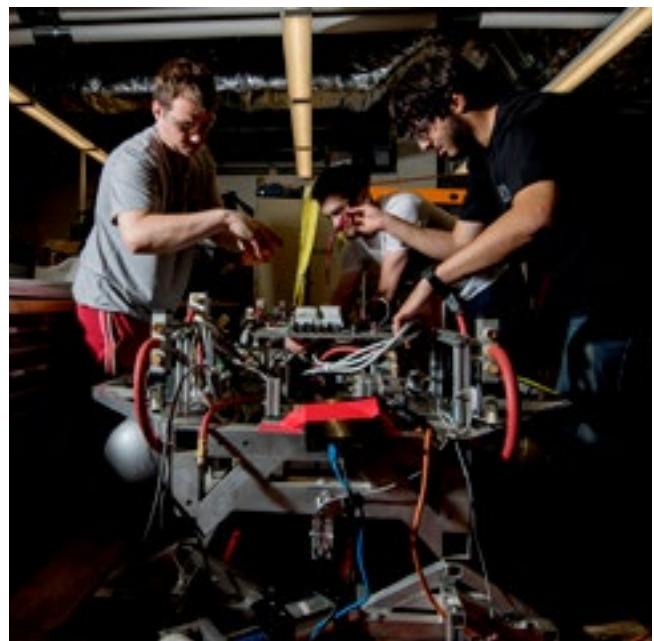
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**8,360 degrees in Legal Professions  
and Studies**

---

**30+**

**universities and colleges in the Boston region  
provide computer science programs**



## Boston Public Schools Overview

**#1**

**Massachusetts ranked as the best state for public education**

**#1**

**Boston Latin School ranked best public high school in Massachusetts**

**125**

**schools in the Boston Public School (BPS) district**

**55,000**

**students in K-12**

**±17,000**

**students in grades 9-12**

## Computer Science Programming

**1st**

**Massachusetts is the first state in the U.S. to offer a dollar-for-dollar match with private industry for K-12 computer science education**

**Nearly 70%**

**of BPS students participated in Hour of Code during the 2016-2017 academic year**

**Four**

**high schools provide Computer Science Advanced Placement Programs**

**Leading examples**

**of Computer Science Programming are integrated in K-12 curriculum across the district**

## K-12 Computer Science. Yes.

Today, the Boston Public Schools (BPS) is an award-winning public school district. Mayor Walsh launched [Build BPS](#) a \$1 billion dollar investment over the next 10 years for public school infrastructure. BPS helps students learn the academic and technical skills needed to matriculate into Boston's higher educational institutions. BPS continues to expand its network of meaningful partnerships in collaboration with higher learning, philanthropy, community-based organizations, and the private sector.

BPS offers computer science programming across the district and throughout the K-12 system. In the 2016-2017 academic year, approximately 70% of BPS students participated in Hour of Code, a global movement that reached tens of millions of students around the world. Boston's flagship Computer Science Advanced Placement Programs are based in BPS' three exam schools including: *Boston Latin School*, a top tiered school ranked nationally annually, *John D. O'Bryant School for Mathematics and Science*, and *Boston Latin Academy*. Students at the Dearborn STEM Academy, which is moving to a new state-of-the-art facility in 2018, benefit from the required CS Principles course, which promotes Computer Science for all.

Tech Boston, which has a STEAM media lab currently under construction, requires all students to become competent in an array of industry standard technologies, including computer science. Tech Boston also offers Advanced Placement Computer Science.

### Charter Schools

In addition to the Boston Public Schools, charter schools in Boston are also increasingly incorporating computer science curricula in the classroom. Offerings range from multi-week courses (Conservatory Lab Charter) to semester-long electives (Boston Collegiate Charter, Match Charter, and Boston Prep Charter) to required grade level and grade span classes (Edward Brooke Charter). Subject matter areas include computer science, programming and coding, engineering, robotics and internet safety. Students are using tools like Scratch Jr., Scratch, Arduino and Lego Robotics Kits in many of their courses. Local charter schools are also partnering with organizations such as Excel Academy Charter, Project Lead the Way, and 12 Learning, specializing in STEM learning to develop in-school and out-of-school time learning opportunities.



# Boston, Your Home

***“City and state officials were true partners in our relocation, in everything from site selection to permitting our new campus. ...Governor Baker and Mayor Walsh worked with us every step of the way so we were able to break ground on our new campus in record time.”***

— **Ann R. Klee**  
Vice President, General Electric

Strategically located within the urban fabric of East Boston and Revere, the unique 161-acre Suffolk Downs site (“Site”) offers the thriving, healthy and viable environment that Amazon is seeking for its second corporate headquarters. As one of the largest development sites in the Northeast, Suffolk Downs enjoys the advantage of providing a blank canvas for the HQ2 development—this area has the flexibility to not only meet and exceed Amazon’s current goals, it will also be able to evolve with the ever-changing needs of the company.

The entire 161-acre former horse racing facility is owned by and will be developed by The HYM Investment Group, a Boston-based real estate firm with extensive experience developing some of the area’s largest and most complex mixed-use districts and neighborhoods. HYM is a cooperative and creative collaborator that will provide Amazon with a single point of ownership contact to support seamless development of the new HQ2 community at Suffolk Downs. The East Boston and Revere communities with HYM, would like to collaborate and work with Amazon to craft a vision for this new dynamic mixed-use neighborhood at Suffolk Downs. We believe this 160-acre neighborhood can also be the ideal place to integrate emerging urban systems and technologies.

**161 Acres**  
of Contiguous Land

**Shovel-Ready**  
Site

**One Owner**

The HYM Investment Group

**Extraordinary**  
Assets and Connectivity







## Transportation and Connectivity. Yes.

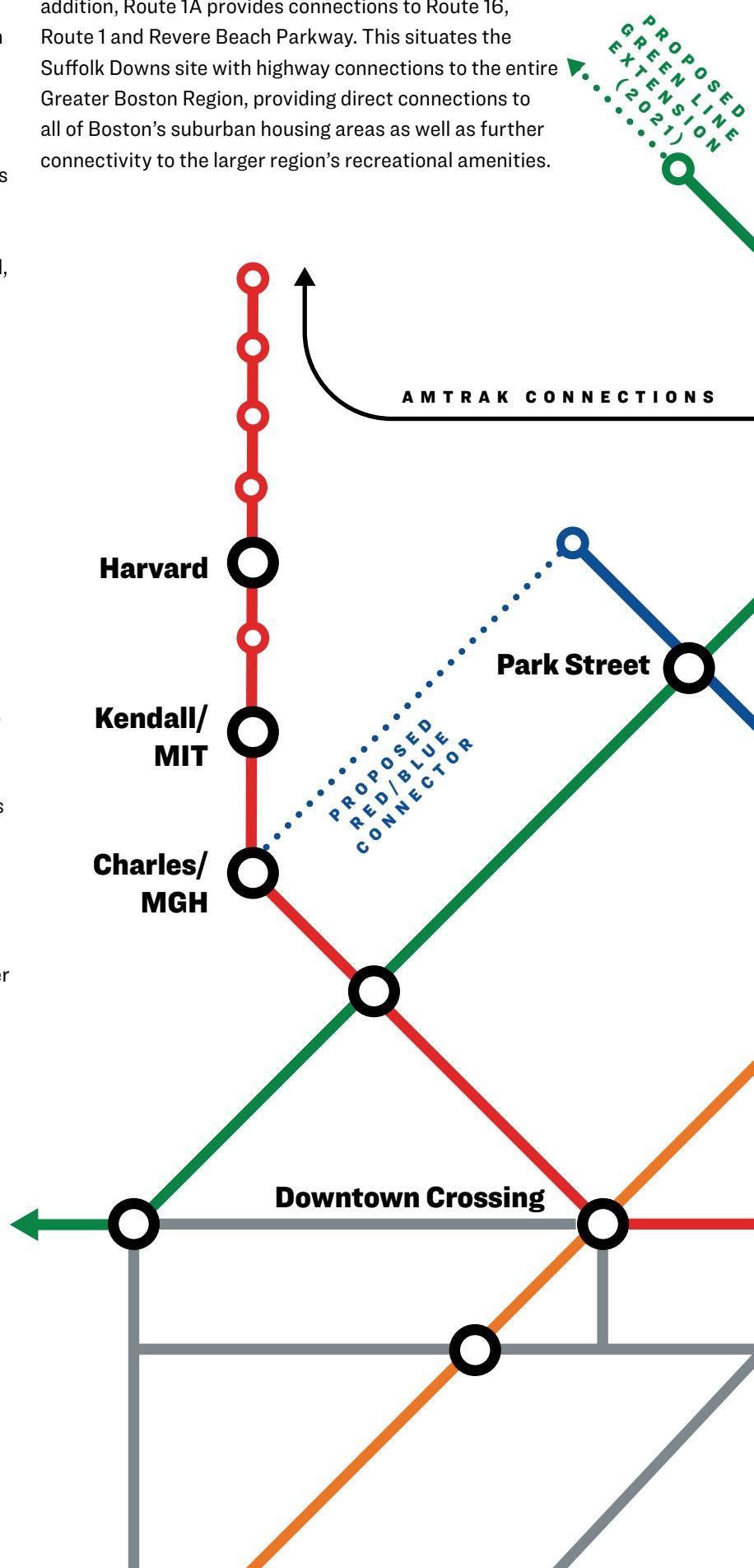
One of Suffolk Downs' greatest strengths is its two direct connections to the MBTA's Blue Line at Beachmont Station and Suffolk Downs Station. Via the Blue Line, the Site is just five minutes from Logan Airport and 11 minutes from State Street, the heart of Boston's financial district. The Blue Line also offers connections to South Station and its commuter rail lines via the Silver Line and to North Station and Back Bay Station and their respective commuter rail lines via the Orange Line.

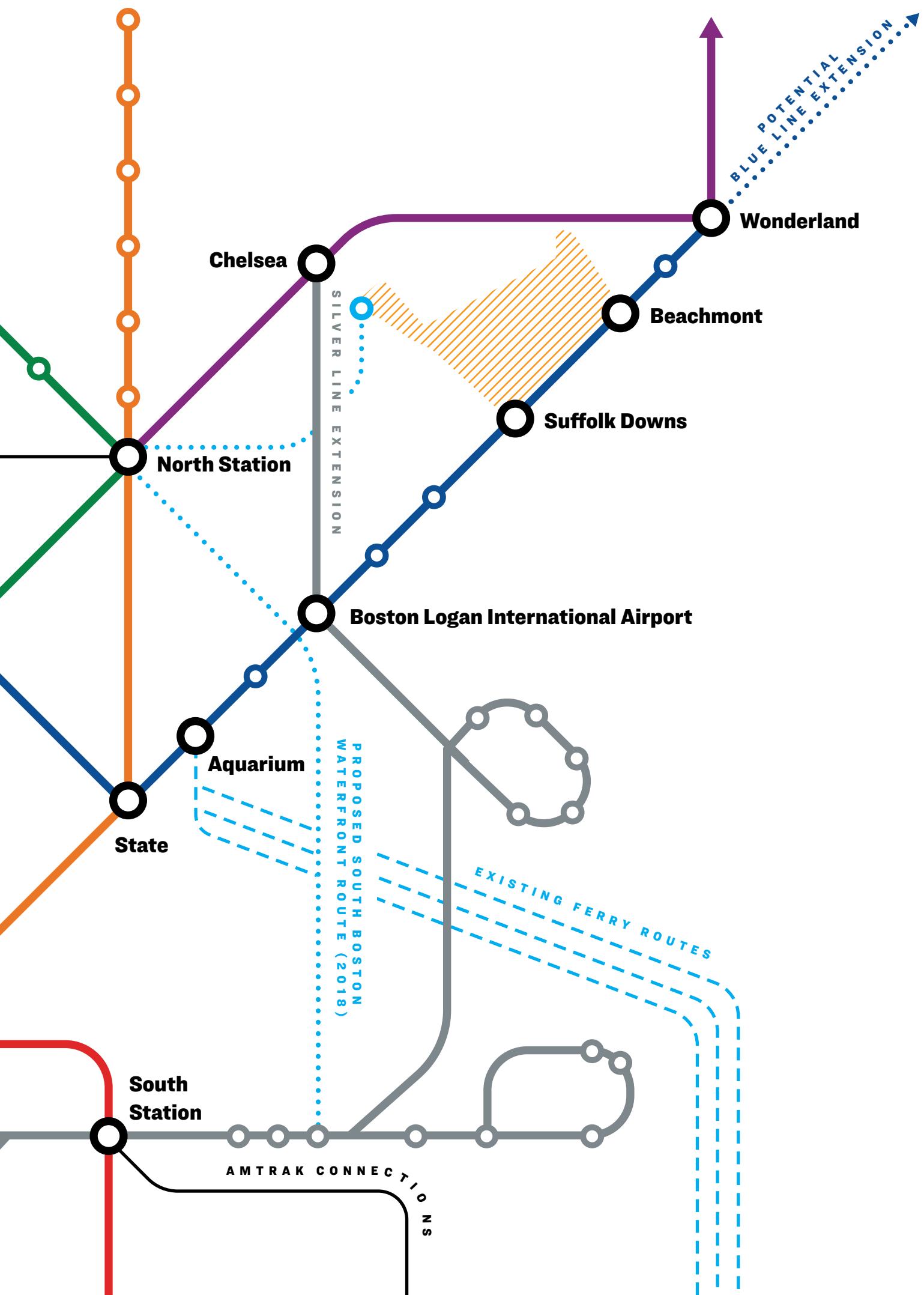
Connecting the Blue and Red Lines is a clear goal of the State, and we believe an Amazon campus at Suffolk Downs will help complete that connection, which would tie East Boston and Revere directly to Cambridge, Harvard and MIT. The Blue Line is ready to meet this additional demand, as well as the demand generated by the development of Suffolk Downs. The Blue Line has the capacity to meet Amazon and East Boston's needs in the future. Furthermore, all the Blue Line cars were replaced just 8 years ago and the MBTA currently schedules regular maintenance for these cars and holds two extra train sets in reserve, which can be added into service to add additional capacity in the future if needed.

Suffolk Downs benefits greatly from its proximity to the Silver Line at Logan Airport today which can be accessed from the Blue Line. The Site will also seek an extension of the Silver Line Rapid Bus Transit to the Suffolk Downs site which would directly connect the Site to the Seaport District and South Station commuter rail lines. In addition, the City of Revere is pursuing a new commuter rail station adjacent to the Wonderland Blue Line Station providing a commuter rail connection via the Blue Line to the site. This new station would provide access to the Newburyport and Rockport commuter rail lines and a diverse set of North Shore coastal cities and towns.

Looking beyond subway and rail connections, the Boston area also offers a diverse network of bus, shuttle and water ferry systems. In addition to these transit connections Suffolk Downs will have the ability to operate direct shuttles to the nearby North Station Commuter Rail Hub, just like many major corporations in Boston's Seaport Innovation District and Cambridge's Kendall Square District. Additionally, there is a proposed water terminal adjacent to the Suffolk Downs site on Chelsea River that can provide direct access to North Station, Seaport District and other downtown destinations.

Finally, Suffolk Downs is directly served by Route 1A, a major north/south state highway which provides direct connections southbound via the two Boston Harbor Tunnels to Interstate 93 (North-South Highway Corridor) and Interstate 90 (East-West Highway Corridor). In addition, Route 1A provides connections to Route 16, Route 1 and Revere Beach Parkway. This situates the Suffolk Downs site with highway connections to the entire Greater Boston Region, providing direct connections to all of Boston's suburban housing areas as well as further connectivity to the larger region's recreational amenities.





## Central Location. Yes.

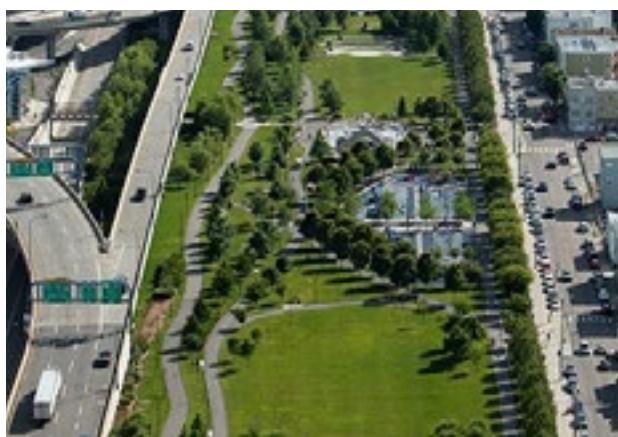
Suffolk Downs' central location makes it easy to get around Boston and the region. The Site's connectivity to two Blue Line subway stations, Silver Line Rapid Bus Transit connection, local bus routes, bicycle commuting routes, Logan International Airport and major highways will ensure that everything is within reach for the Amazonians living and working at Suffolk Downs.

Specifically, the Site is linked by public transit to a wide variety of social, cultural, educational and health care assets. Getting from Suffolk Downs to the Museum of Fine Arts, the Boston Public Garden, MIT, Harvard University or Mass General Hospital is as simple as jumping on the subway.

Suffolk Downs and the adjacent East Boston and Revere neighborhoods are also just a ten minute subway ride away from the Seaport Innovation District and downtown Boston just across the harbor by the Silver Line and Blue Line, respectively. The Blue Line as well as the highway system also link the Site to Boston's North Shore. This region of Greater Boston is known for its beautiful beaches and affordable cost of living.

Furthermore, the Site itself will be designed to create a strong sense of community as well as distinct neighborhoods. For example, one part of the Site may feature residential uses, parks and playgrounds ideal for Amazonians and East Boston and Revere families while another may feature micro-units, co-working spaces, dog parks and local breweries to attract Amazonians and Boston millennials alike.







## East Boston and Revere. Yes.

Suffolk Downs offers a rich ecological and social history. Once a coastal marshland, the area was filled in during the 1920s to accommodate a speculative residential development that was never realized. Instead, the Site became a thoroughbred horse racing complex in the 1930s. In its heyday in the 1930s, 40s and 50s, races attracted more than 24,000 daily spectators. It remained in continuous use until just last year. As such, Suffolk Downs avoided many of the historical industrial uses that occupied similar urban lands in Boston in the 20th century. Given its historical high traffic destination and location within Boston's urban core, Suffolk Downs is directly and heavily served by existing mass transit, highways, open space and utility infrastructure networks. Today, it exists as a shovel-ready site but one that is fully connected and integrated into an urban transportation network. With the closure of the existing horse racing complex Suffolk Downs is perfectly positioned and ready for its next evolution and redevelopment that is fitting for the 21st century.

### Existing Coastal and Open Space Resources

Although originally filled in during the 1920s, the Site has existing wetlands and water resources that will bring existing high value environmental character to the Site. Sales Creek crosses the Site along the East Boston and Revere border providing a future centerpiece of the 40-acre open space system. Sales Creek connects the Revere watershed with the coastal 188-acre Belle Isle Marsh, which is within walking distance of Suffolk Downs. There is also an existing pond on the Site, originally constructed in the 1930s, and numerous wetlands that have become local habitats for birds and other small animals. These wetland resources will be preserved and integrated into the proposed 40-acre open space system, providing an open space oasis within the new urban district of Suffolk Downs.

### Surrounding Neighborhoods and Culture

Suffolk Downs is embedded in the vibrant and growing urban communities of East Boston and Revere. Given its location within the urban fabric, the Site is adjacent to and accessible to established neighborhoods of East Boston and Revere.

East Boston is a highly diverse area that is home to longstanding residents, families, immigrants and young professionals alike. As of 2015, approximately 50% of the area's residents were born outside of the US. This is the highest percentage of foreign born residents in any Boston neighborhood. Historically, immigrants in this neighborhood came from Italy, Canada, Ireland, Russia and Eastern Europe. More recent immigrants in this area today hail from Southeast Asia and Central or South America. This blend of older established neighborhoods with continued immigration shows the community's remarkable diversity, particularly reflected in its multi-cultural cuisines in its restaurants and the variety of global languages spoken on its streets.

Also, because of the area's natural assets, proximity to Downtown Boston and diversity of cultures and backgrounds, interest in this neighborhood has grown. Numerous new residential units along the former industrial waterfront have attracted a wide variety of tenants, many of whom are young professionals, adding in another youthful and vibrant cultural layer.

The area is also known for its beautiful waterfront beaches and parks and great recreational offerings. Whether swimming at Constitution Beach, playing soccer at East Boston Piers Park, running along the East Boston Greenway or birdwatching in the Belle Isle Marsh, there is nowhere better in Boston to enjoy the outdoors. In addition, given its cultural diversity and several established

neighborhoods, East Boston holds numerous festivals and neighborhood based events throughout the year.

The neighborhoods of Revere also thrive on the diverse people that make up its community. The City is enriched economically, ethnically, racially, religiously and culturally, along with the City's immediate neighbors in East Boston and Chelsea. Multi-lingual households are typical of these working-class communities; and they are also characteristic of the Revere population, 35% of which is foreign born. The City has long been defined by generations of immigrant families, as German families were followed by Irish and Italian, and more recently by those from Central America, North Africa and Southeast Asia. The result is a melting pot of origins, languages, religions and cultures that defines Revere as a community, with a strong sense of personal history and civic pride.

Revere is also defined by the dozens of festivals and celebrations hosted each year, bringing hundreds of thousands of visitors and tourists to the City and its historic beaches. The annual International Sand Sculpting Festival attracts close to a million people over the course of a week each July, while annual artist and kite festivals and bocce and volleyball tournaments are also major seasonal attractions.

Equally important are the many neighborhood-based events and celebrations that reinforce both the unity and the diversity of our community. These include the Annual Community Festival and Immaculate Conception Church Family Festival in September, the Columbus Day Parade in October; Cambodian New Year in April and the numerous Moroccan, Hispanic and other cultural and religious festivals and celebrations that animate Revere throughout the year.



## Open Space and Bicycle Network. Yes.

Located on expansive and beautiful waterfront, East Boston and Revere take full advantage of some of our region's best natural assets. The East Boston Piers Park offers breathtaking views across the Harbor to the Boston skyline. The Belle Isle Marsh Reservation offers quiet walking trails and great bird watching along the water's edge. Revere Beach, the first public beach in the United States, offers a three-mile boardwalk and beachfront just a 5 minute walk from the Site. East Boston's Constitution Beach provides the perfect opportunity to soak up the summer sun with friends and family. Finally, the East Boston Greenway includes lovely community gardens and parks along a linear bicycle community path which will connect the open space corridor between the East Boston Piers Park and Revere Beach.

The new development at Suffolk Downs and Amazon HQ2 itself will include 40 acres of public open spaces that will connect directly to the neighborhood's existing network of waterfront parks, beaches and reservations. These 40 acres equates to 25% of the Site's land area being utilized as open space, creating a vast open space network creating opportunities for a mix of active and passive open spaces for use by tenants, residents and the surrounding neighborhoods.

Key open spaces within the development will include a 17-acre public common, outdoor performance theater, playing fields, playgrounds, dog parks and several neighborhood plazas. These new open space network will incorporate existing wetland features on the Site and will provide direct connections via community paths to Revere Beach, Belle Isle Marsh, East Boston Greenway and other nearby open spaces. The vibrant public parks, plazas and recreation spaces provided in this new development will therefore attract and benefit not just Amazonians but also on-site residents as well as those from the wider neighborhood.

Furthermore, the new development at Suffolk Downs will be integrated into the local urban fabric through a robust bicycle path network and walkable neighborhood streets. Suffolk Downs will include a welcoming and well-designed bicycle and pedestrian path system to encourage sustainable modes of transportation, promote health and wellness and enhance social interactions and idea sharing within this one-of-a-kind innovation community. Suffolk Downs will also include multiple Boston and Revere Hubway bikeshare stations, connecting cyclists to destinations within the community and beyond.

---

**1,080 Acres**  
**of Open Space**

---

**615 Acres**  
**Urban Wilds and Natural Areas**

---

**2 Beaches**  
**in 5 min. walking distance**

---

**202 Acres**  
**Parks, Playgrounds and Athletic Fields**

---

**213 Acres**  
**Parkways, Reservations and Beaches**

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**40 Acres**  
**of On-site Open Space**



## Housing and Affordability. Yes.

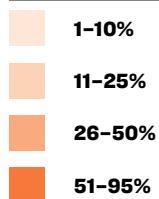
East Boston and Revere offer affordable housing opportunities while providing a great set of social, cultural and ecological amenities. As such, they are currently home to families and households with a wide range of ethnic, cultural and educational backgrounds and celebrate the remarkable diversity of individuals who choose to call them home. East Boston, Revere and the surrounding communities are also widely recognized as one of the more affordable housing markets in such close proximity to Boston. It is estimated that the areas surrounding Suffolk Downs offer housing that is up to 40% more affordable than downtown Boston.

The attraction of this Site is that it is strategically situated between affordable and family oriented neighborhoods and downtown Boston offering both as options to the employees of Amazon. Further, Suffolk Downs itself will include up to 10,000 residential units, providing an

opportunity for up to 20% of Amazon employees to live close by. Also, this part of East Boston and Revere still has redevelopment opportunity, particularly given the Blue Line extends through this area heading north through former industrial and other underutilized areas. Many large dense residential developments have been recently constructed in East Boston and Revere, particularly along the East Boston waterfront and along the 3-mile long Revere Beach. In addition, East Boston and Revere are considered a “Gateway to the North”, where a number of small cities and suburban towns offer a further diversity of housing types many of which are within easy commuting distance of the Site. Nearly 9,000 new housing units are in planning processes in North Shore communities.

### Middle Income Home-ownership Opportunities: Affordable to a household earning \$75,000 with 2 workers and 2 children.

**2014 & 2015 Condo & Single Family Sales Percent Affordable**

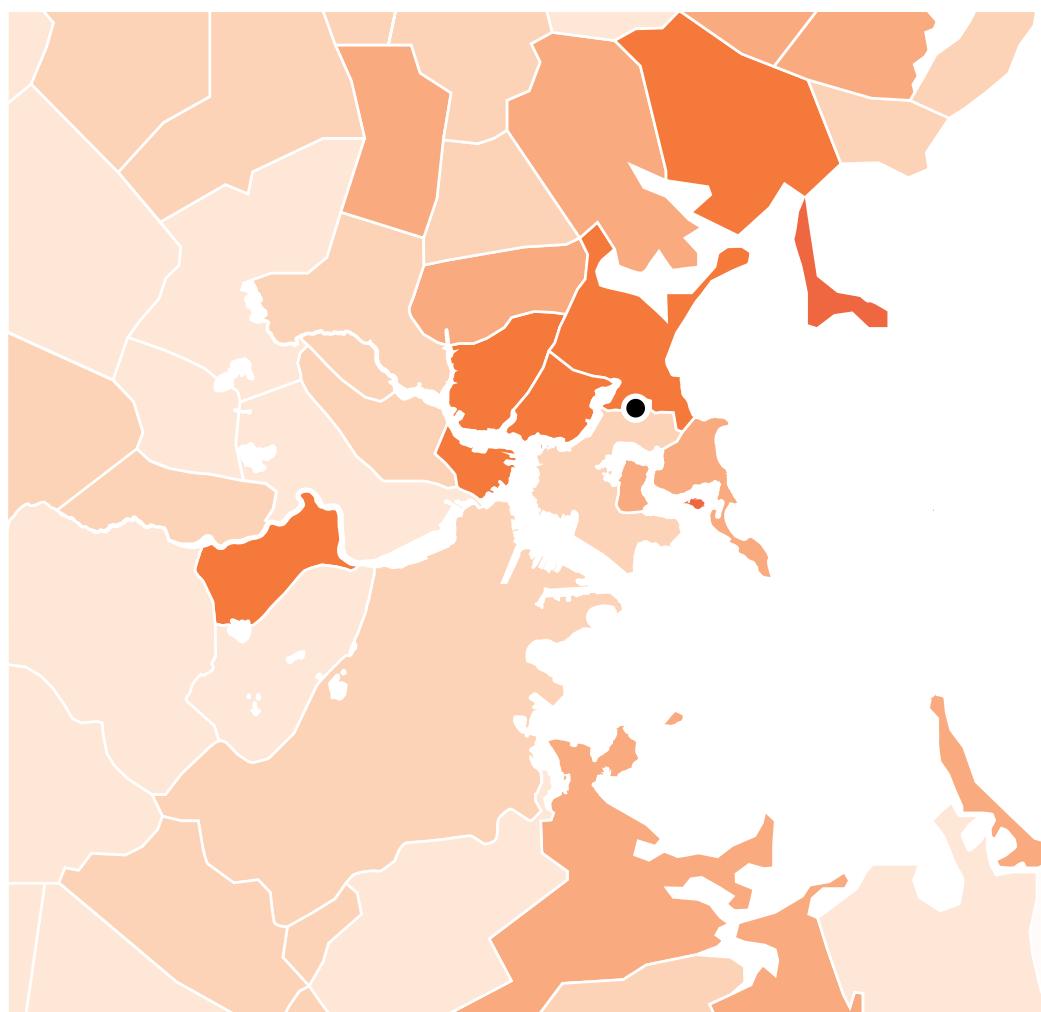


**40%**

**More Affordable than Downtown Boston**

**13%**

**Boston Affordable Housing Requirement**





## Supportive Sites. Yes.

\$110 million in planned improvements to the Wonderland MBTA Station will include a public plaza and a pedestrian bridge. Upgrades to the station will support neighboring development at Waterfront Square which will include 1,200 housing units and a 175 key hotel with restaurant and retail services.

### Wonderland Park

is a 35-acre former racetrack on the MBTA Blue Line. Site is in process of being prepared for new mixed-use development.

### Necco Factory

is a 49-acre site with 830,000 square foot building permitted for research and advanced manufacturing. It is nearby to a planned commuter rail station.

**“[We] worked closely with city officials to get the property rezoned in a matter of weeks for research, advanced manufacturing, robotics and e-commerce. ...Revere is clearly an exciting, progressive and business-friendly community.”**

— Joseph Zink

President, Atlantic Management

James Vitas

Managing Member, VMD Companies

## Suffolk Downs. Yes.

Suffolk Downs straddles the two cities of Boston and Revere, and the Site has already been zoned and designated by both cities for major mixed-use development. The proposed master plan offers a dynamic mix of uses on the Site, encouraging civic and cultural community spaces, creative retail and retail incubators, as well as commercial and residential uses.

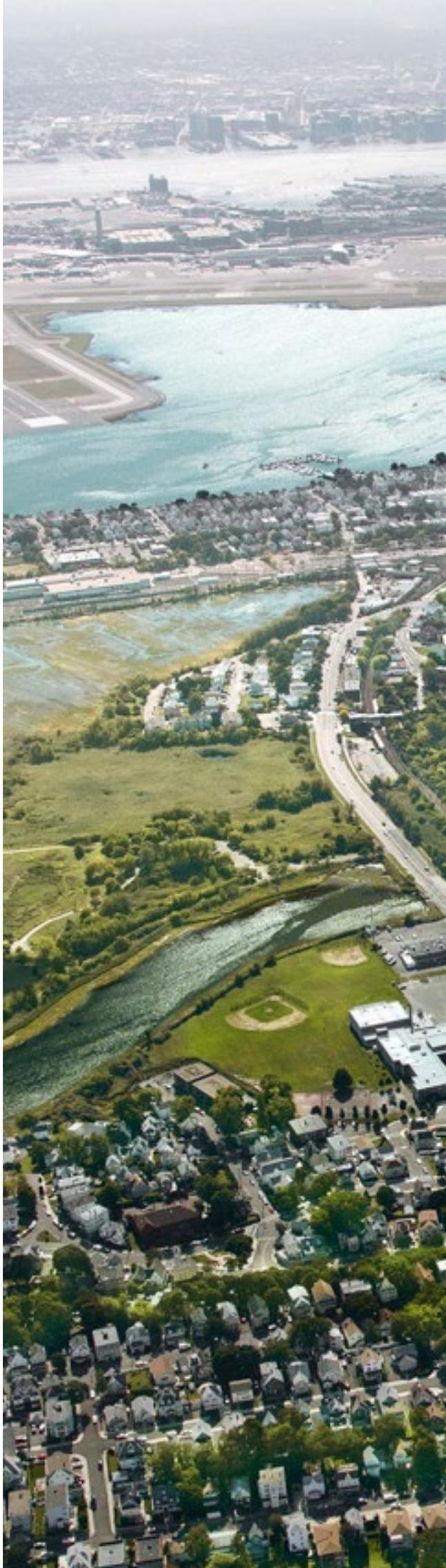
The new mixed-use neighborhood at Suffolk Downs will include Amazon's entire 8 million square-foot commercial office requirement. The commercial component will be anchored at the two existing Blue Line stations and then will radiate through the Site along a network of new streets, neighborhood retail districts and open spaces. The entire commercial program will be within walking distance of not only the two Blue Line stations but also between the commercial buildings themselves.

The Site will also include up to 10,000 housing units of all shapes and sizes. These units could accommodate up to 20% of Amazon's staff on-site and well within walking distance of their workplaces. Units will be designed to attract a wide variety of residents, from young professionals and families to empty-nesters and multi-generational households. These residential buildings will be interspersed with the commercial buildings ensuring vibrancy throughout the Site and creating several new neighborhoods on the Site.

Street level retail will also be a core element of the overall development. Four distinct retail districts will be located on the Site with over 550,000 square feet of street front retail. They include Beachmont Square, Belle Isle Square (adjacent to the Suffolk Downs T Station), a new Main Street Retail District (located in the heart of the Site) and a more active entertainment district. This will augment already existing retail and restaurants in the surrounding neighborhoods. In addition, Amazon will have the opportunity to include their retail stores and concepts within these on-site retail districts.

Five hotels with over 1,500 rooms are planned for the on-site development. These accommodations are an ideal addition to the area for Amazonians with colleagues, business partners and collaborators visiting from out of town. Furthermore, the surrounding innovative retail, restaurants and nightlife planned for Suffolk Downs will appeal to visitors and provide ample entertainment during their stay.

The above uses will be interspersed throughout the Site to ensure a dynamic 24/7 mixed use environment that is woven together in a cohesive fabric of new urban streets, walking paths, open spaces and bicycle connections. Key civic amenities will also be incorporated throughout the Site including Belle Isle Square, Beachmont Square, an outdoor performance theater, dog-friendly parks and playgrounds. In addition, ground-level amenities will be encouraged, with local restaurants and on-site retail able to spill out onto adjacent sidewalks and open space areas.



**8 Million**  
Square Feet of Amazon  
HQ2 Office Space

**1,500 Keys**  
at 5 Hotels

**10,000**  
Residential Units of All  
Shapes and Sizes

**550,000**  
Square Feet of Creative  
Retail and Civic Spaces

**40 Acres**  
of Urban Open Space



# Suffolk Downs: A Dynamic Mix of Uses and Offerings. Yes.





## Creative and Incubator Retail. Yes.

The dynamic mixed-use community at Suffolk Downs will be anchored by 550,000 square feet of neighborhood-based street front retail. The development's creative retail strategy will focus on attracting a diversity of shops and restaurants that will spill out onto its urban streets, keeping the community active and engaged throughout the day and night.

The retail program within this mix-used development will include restaurants, coffee shops and cafes, as well as a grocery store, pharmacy, bicycle shop and entertainment spaces. The neighborhood will also embrace greater Boston's active and healthy lifestyle by including crossfit, fitness and climbing gyms. Furthermore, the Site will

also attract existing local restaurants and businesses and cultivate an authentic retail vibe for the community which will not only serve on-site and residents, but also surrounding neighborhoods.

This vibrant retail environment will also provide opportunities for a range of customized Amazon spaces such as Amazon Go, Whole Foods and Amazon Books. It could also serve as a testing ground for new urban retail models as Amazon continues to redefine retail as we know it. Given this is a ground up development, the new buildings can be designed to accommodate the vision and needs of Amazon retail concepts from the beginning, maximizing their impact and integration within the Site.



# Belle Isle Square

A place where Amazon can pilot new retail projects? Yes.

Invent and Innovate

Solve a world problem

Grab a bite



# Beachmont Square

A family and pet friendly community? Yes.



Retail will be clustered in four key districts. Two of the districts, Beachmont Square and Belle Isle Square, will be located at the two existing Blue Line stations. These two nodes will consist of street level retail along tree lined primary streets that will extend into the heart of the Suffolk Downs mixed-use district and both of these nodes will connect into both the central common space but also the new Main Street retail district. These three districts will, when complete, create a continuous retail corridor that starts at one Blue Line station, traverses through the heart of the new mixed-use Suffolk Downs Site and connect to the other Blue Line subway station. Along the way

it will connect and cross the 40-acre open space system creating opportunities and synergy between the retail and open space network. The fourth retail district will be an open-air entertainment hub. The unique character of this area will be defined by the many distinct restaurants and pubs lining its vibrant urban streets and central plaza. In addition to bowling and billiards, this 100,000 square foot entertainment hub will also include a small indoor concert venue and other nightlife attractions. Combined, these four retail districts will create a synergy that will not only engage the businesses and residents but draw people from the surrounding neighborhoods and the region.



## Resiliency, Sustainability, and District Energy at Suffolk Downs

### Attractive Site Characteristics Supporting Reliability & Sustainability

The 161-acre contiguous Site can enable a variety of energy infrastructure and technology configurations and solutions. Specifically, the Site offers great potential for developing distributed energy resources to realize a low carbon, energy efficient campus. A central tri-generation utility plant can offer highly efficient use of energy to generate, heating, cooling and electricity from the same energy source and offer transitional phasing to low carbon generation. Additionally, opportunities for energy recovery from data center waste heat or thermal exchange can further enhance efficiency at the campus and/or building scale. There is also immense potential for renewable energy production, up to 10MW from rooftops alone. Furthermore, a central plant and on-site renewable energy production would allow Amazon to continuously operate during power outages or catastrophic events.

The summary chart on the right below outlines the preliminary energy needs for heating, cooling, domestic hot water, and electric loads (lights & plugs) to support Amazon's full build out (8 million square feet).

Suffolk Downs is well positioned to leverage on-site renewables such as solar-PV, solar-thermal, data center waste heat recovery, wind and geothermal technology (up to 25 acres within open space area) potentially coupled with energy storage that will maximize the unique sustainability characteristics of the Site. On one hand, the electrical needs of the Site can be directly served by solar PV and nominal use of wind and supplemented and backed up with direct connection to the grid. On the other hand, the heating and cooling needs of the Site can be served by geothermal technology coupled with solar-thermal capacity supplemented and backed up in a variety of alternatives; ranging from individual systems within buildings to smart-city networking leveraging district thermal systems. The private road infrastructure will provide the ability to implement a microgrid architecture that empowers Amazon with control over the Site's reliability. In addition, given the scale and single ownership of the Site, District Energy systems can be developed

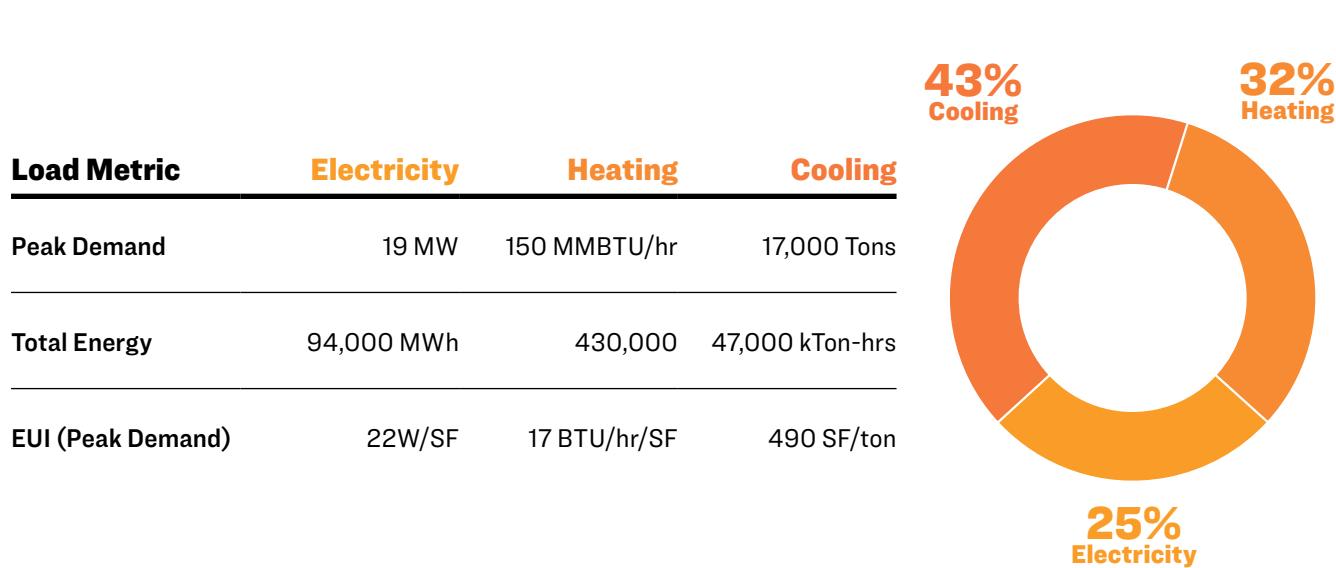
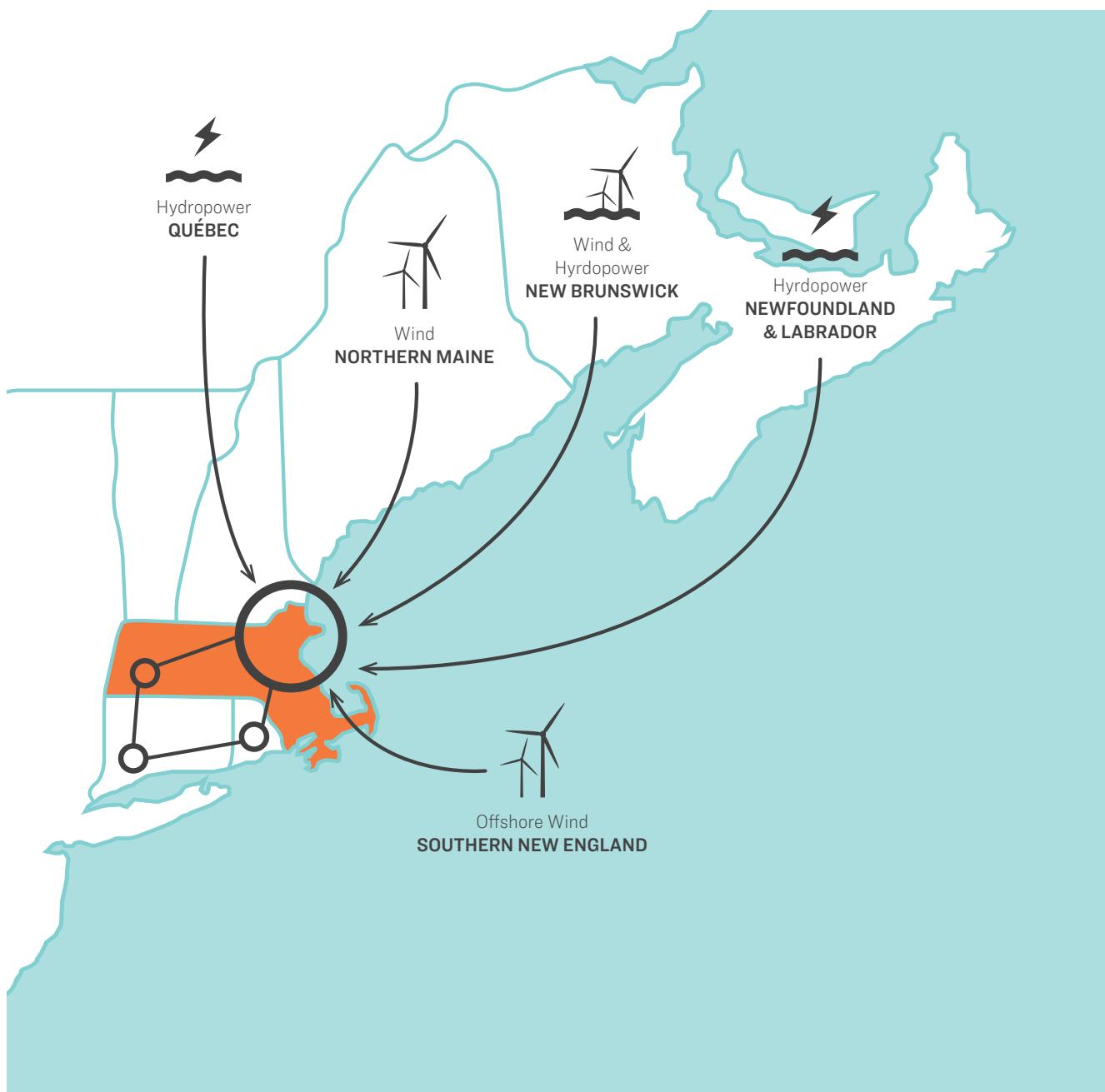
with modularity, whereby certain areas or assets can be operated as stand-alone with the contemplation of future interconnection to a smart-city enable grid. This District Energy system can also integrate, leverage and provide redundancy to any on-site data centers.

### Energy Friendly Regulatory Environment

Massachusetts' green economy strategies encourage an integrated energy efficient, renewable and resilient energy system, all possible at Suffolk Downs. Massachusetts has a Renewable Portfolio Standard, Alternative Portfolio Standard, and Clean Energy Standard, as well as clearly-defined carbon reduction policies that target 80% integration of renewables and clean energy by 2050. While much of this is accomplished with off-site renewables, the market for on-site generation is bolstered by lucrative incentives. Incentives include rooftop and parking lot-mounted solar, as well as production incentives for combined heat and power plants and the use of geothermal heating and cooling.

### Climate Change

The Site will be designed to deal with changing temperatures and extreme heat and will respond to climate change including increased precipitation and future sea level rise with elevated streets and infrastructure network. In particular the 40-acre open space system will be designed and configured to mitigate these climate change challenges. In addition, the Site already has access for a resilient utility infrastructure with water and sewer connections from two separate municipal systems and access to two independent electrical power grids. Coupled with the potential for distributed energy resources on-site through a central tri-generation utility plant, renewable energy production and on-site storage, the Site has the potential for several layers of resilience to support a shelter in place capability.







## Infrastructure at Suffolk Downs. Yes.

Today, Suffolk Downs is already embedded within a heavily connected urban utility infrastructure network which allows unique opportunities in terms of redundancy, flexibility, resilience and cost.

### Electrical Grid and Service

The existing Site is served by two independent public utility electrical grid systems. Eversource Energy serves East Boston, and National Grid serves Revere. Both utilities have 115kV:1 3.8kV bulk substations near the Site, with a 115kV transmission line running to the northwest of the Site. In addition, the Site is in close proximity to Logan International Airport, which is considered a highly critical electric customer. As such, reliability and excess capacity in the area are a top priority for the public utilities.

The regional electric transmission system also provides the capability to connect the Site to offshore wind, Canadian Hydro, and utility scale Solar PV electric power. Massachusetts is a leading state with policies supporting renewable energy as can be seen with the aggressive

growth of solar as a core generation source and plans for 80% integration of renewables and clean energy by 2050. Notable examples include the Nation's first off-shore wind plant, several interstate transmission projects connecting Quebec Hydro Power (1,200MW+) and utility scale Solar PV projects. The existing regional transmission not only gives Amazon access to vast renewable energy options but also allows Amazon the opportunity to build and connect to its own renewable energy projects in the New England region.

### Natural Gas Service

Natural gas is proved by National Grid for both East Boston and Revere from the Tennessee Gas Pipeline via the Revere City Gate. This connection provides for reliability as well as the opportunity for creation of a District Energy solution for the Site and further potential redundancy for the Site.

## Fiber Connectivity

**Scheduled for 2022**

## 2 Independent Grid Systems

**Eversource in East Boston and National Grid in Revere**

## Smart Utility Roads

**Improving Flexibility and Growthtail**

## Regional Water/ Sanitary System

**by the Metropolitan Water Resource Authority**

### Water & Sanitary Sewer

High quality water and sanitary service are provided by the regional authority Massachusetts Water Resources Authority (“MWRA”) and served through the local Boston and Revere water and sewer networks. Given the Site is located within two municipalities and served by the regional authority there is material capacity for both water and sewer and multiple connection options. Also, the main MWRA sanitary sewer treatment plant, Deer Island, is approximately three miles away, which was recently constructed and sized for material growth in the greater Boston region.

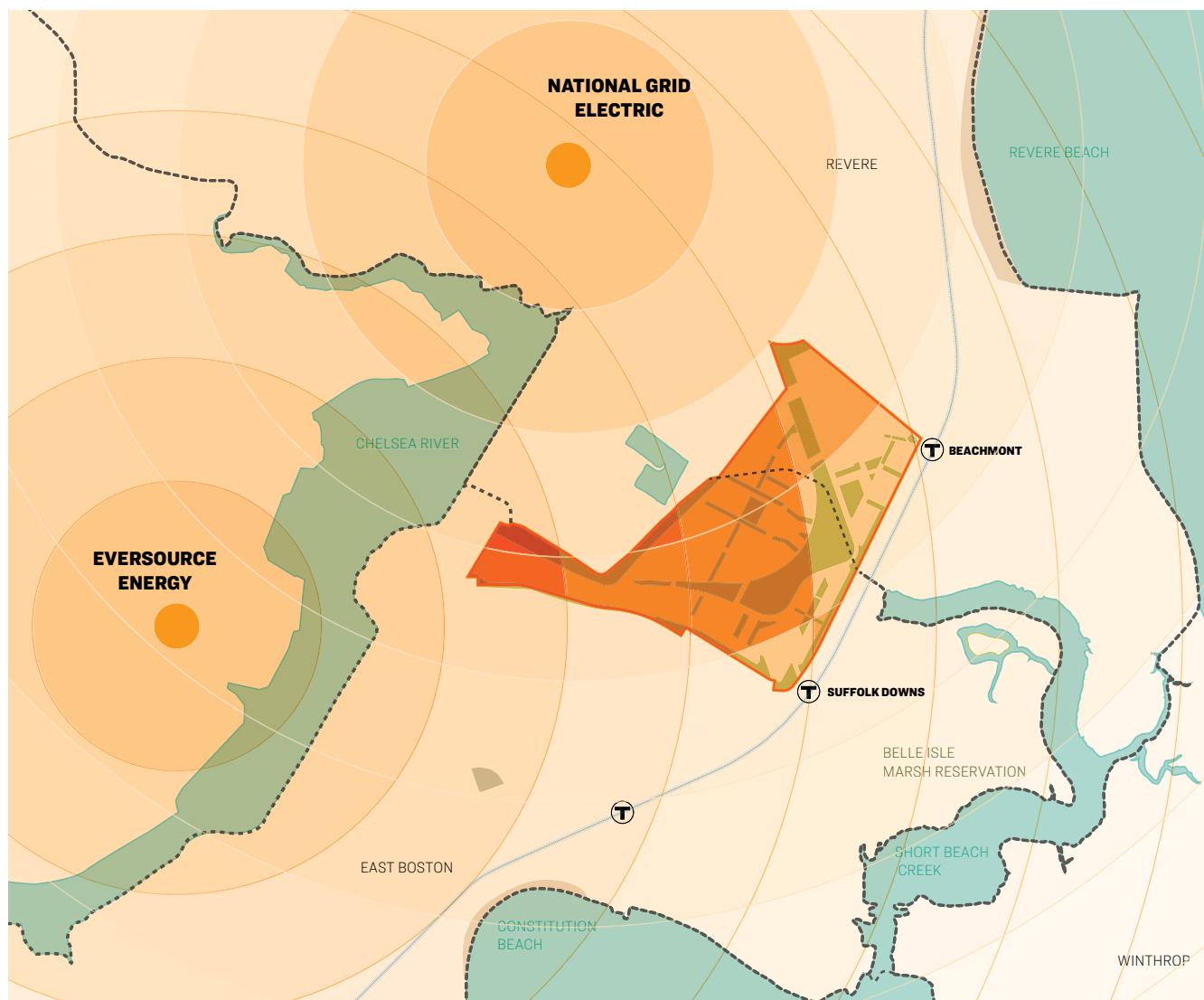
### Smart Utility Streets & Corridors

Given the on-site greenfield nature of the Site, the on-site roadways and utility networks can be constructed with appropriate flexibility and additional capacity, particularly for tel-data and other critical infrastructure. In addition, street design will be incorporating the latest Boston Complete Streets guidelines which incorporates storm water bioswales & catchment gardens, tree canopies, car share, electric vehicle charging, bicycle lanes/cycle tracks,

smart utility corridors, autonomous vehicle capabilities and potential for the integration of new urban street technologies over time. Finally, the Site's streetscapes and extensive urban open spaces would include integrated wifi systems, allowing Amazonians to connect with one another anytime worldwide.

### Fiber & Cell Phone Connectivity

Fiber optic connectivity and wireless communications options are a strong point for selecting the Suffolk Downs location. The location is in close proximity to the vital transportation hub of Logan Airport, provides optimal access to advanced fiber connectivity as well as cellular coverage with 4G and 5G technology that can be further deployed on the site. The site will also incorporate smart city technology that will deploy the latest technology and enable the rapid deployment of future technologies for wired/fiber and wireless solutions. All major US Carriers have a significant presence in the Northeast, and Boston specifically. Comcast, Verizon, and third-party fiber providers will be available to serve Suffolk.



## Ecology, Habitat, Health and Well-being at Suffolk Downs. Yes.

The built and natural environments in which we live, work and play greatly influence our health and well-being. Suffolk Downs allows for the opportunity for ecological planning and for the community, developer and cities to work together to find a balance between the natural and built environments. This will allow the creation of multi-functional open spaces that provide urban habitats, mitigate climate change impacts and manage storm water while also offering relaxing and restorative places to walk, run and recreate right outside one's front door. Such easy access to the outdoors encourages community members to lead active and healthy lifestyles while also engaging them in their larger, natural environments.



# Outdoor Performance Theater

A natural place to gather? Yes.



# 2019

Expected Delivery of Amazon HQ2 Phase 1

# 20 Month

Construction Timeframe of Phase 1

Potential Expansion  
500,000 SF

Amazon Phase 1  
500,000 SF

Residential Buildings

Belle Isle Square



Suffolk Downs





## Amazon HQ2 Phase 1. Yes.

Suffolk Downs is a shovel-ready greenfield site with an identified initial location available to deliver Amazon's desired 500,000+ square foot Phase 1 development. This initial location is located immediately adjacent to the existing Suffolk Downs Blue Line Subway Station and ready to serve Amazonians' commuting and lifestyle needs. Amazon's Phase 1 commercial office building would be integrated into a larger mixed-use development from day one with multiple modes of transportation that will connect Amazonians to their office place, retail, surrounding neighborhood and the recreational areas. Concurrently with the construction of the Phase 1 Amazon office building, additional components of Suffolk Downs would be advanced including the Belle Isle Square retail district, several new residential buildings, a major component of the open space network, pedestrian and bike corridors and a potential second 500,000 square foot commercial office building.

### Schedule

Assuming that the project would be awarded in early 2018, HYM and its development team is confident in their ability to deliver Phase 1 of HQ2 by December 2019. This would be possible as the site is already zoned and designated for commercial buildings in both Boston and Revere (the two cities in which the site sits). Both cities allow for a 2.0 FAR. Permits for the larger master plan will be pursued concurrently with the permits required for Amazon's Phase 1.

The initial 500,000 square foot requirement is proposed to be located in Boston and the required permits will focus on the specific building versus the larger master plan. The building will require Article 80 Approval (Design Review) from the City of Boston which HYM will be commencing this Fall and expected to be complete by the first quarter of 2018. The design of the first building has already commenced and will be advanced

to allow a March 2018 ground breaking. Overall, the construction timeframe will be approximately 20 months and Amazon will be able to conduct their fit-out towards the end of the construction schedule. This first phase will be completed for occupancy in December 2019.

### Capital Structure for Phase 1

HYM and its investors have the capital required to construct Amazon's initial 500,000 square foot requirement and the associated open space and roadway infrastructure components required to serve the initial building. HYM will also seek to leverage traditional sources of capital such as conventional construction loan and permanent debt upon stabilization. Given the Boston urban location and Amazon as a long-term tenant, construction debt will be readily accessible. Also, HYM has a strong and successful track record in obtaining both equity and debt for its Boston based development projects.

### Beachmont Station Phase 1 Option B

In addition to the potential Phase 1 location next to the Suffolk Downs station, the Site can also accommodate the Phase 1 1500,000 SF office requirement on the Revere portion of Suffolk Downs adjacent to the Beachmont Blue Line Station. This second option would be located within the proposed on-site Beachmont Square Retail District and would be complemented with several residential buildings, a second commercial office building, the new landscaped amphitheater park and include connectivity to the new 17-acre central common. This Beachmont Square Phase 1 option can also be delivered by December 2019. Again, given the scale of the site and the adjacent two Blue Line stations, the Phase 1 Amazon requirement can be accommodated at either of the two adjacent existing Blue Line subway stations.

# Amazon HQ2 at Suffolk Downs

## Building Design

The Phase 1 building design is focused around having Amazonians connected within not only the building, but also the larger campus and the surrounding neighborhood at large. The building is located adjacent to a Blue Line subway station and welcomes Amazonians to their everyday built environment as soon as they arrive to the Site. The path from the train to the building will be surrounded by multiple parks that would offer recreational and meeting nodes, restaurants and cafés to eat and socialize and a ground floor that will allow Amazon to experiment with retail program and lobby options of their choice. Visual and physical connectivity within the building levels, horizontally and vertically, is embedded in the design principles. The building spans large efficient open floor plates to provide flexibility in program design, furniture layout, circulation and to enable collaboration and engagement among Amazonians while keeping sustainable principles as core values. Expansive window lines will allow natural light to flow into the building for Amazonians' well-being; local and renewable building materials will reflect Amazon's commitment to nature and sustainability; open floor plates with wide vertical connections will allow Amazonians' continuous productivity in a functional and appealing built environment that revolves around efficiency in space programming and indoor climate control. The building will be a state-of-the-art work environment with advanced technological features while bringing nature into the space with ocean and park views and sustainable building materials to mold technology and nature together in everyday life. Interior design features will be personalized to reflect Amazon's company culture while connecting Amazonians to the outside world with a transparent building envelope. The building's exterior and massing are designed to be part

of a pedestrian friendly, high-tech urban network; a new urban neighborhood that will be woven into the existing fabric of East Boston and Revere. This state-of-the-art initial 500,000 square foot home to Amazonians will be built to LEED Gold or higher standards, meet Amazon's immediate needs and create a platform for Amazon's sustainable growth at this unique site.

## Phase 1 Infrastructure

The requisite infrastructure connections and capacity are already in place either on or immediately adjacent to the larger Suffolk Downs site. The existing Blue Line Stations are immediately adjacent to either Phase 1 site and the on-site Tomasello Road provides vehicular connectivity to both Route 1A and Winthrop Avenue. No major off-site infrastructure improvements are anticipated for the build-out of the first phase, although HYM will likely pursue some on-site and some off-site enhancements as part of the first phase.

## Future Phases

HYM and both the cities of Boston and Revere will work collaboratively with Amazon to achieve the company's goals for the completion of up to 8 million square feet of building phases by 2027 and beyond. The master plan will be permitted to allow for the entire 8 million square foot required program as well as housing, retail and hotels for the Amazonians and their guests and also allow for its build-out per the phasing outline by Amazon in its RFP. HYM also looks forward to input by Amazon which can be incorporated as the larger Suffolk Downs site gets redeveloped. The goal would be not only to meet Amazon's current vision and requirements but also to adjust and adapt to Amazon's vision and changing requirements over time.



**LEED Gold+**

**Large Floor Plates**

for Flexibility and Efficiency

**Local/Renewable  
Building Material**

to Reflect Amazon's Commitment to Nature and Sustainability

## Boston Under Construction by the Numbers

# Over \$9 Billion

of Development Under Construction

# 106

Developments Under Construction

# 5.1 Million SF

of Approved Development in the Pipeline

## Additional Sites. Yes.

While the City of Boston strongly believes Suffolk Downs best meets the goals and requirements put forth by the Amazon HQ2 RFP, we also feel that Boston contains several additional opportunities worth considering.

During Imagine Boston 2030, city residents, businesses, and other stakeholders identified areas for growth throughout Boston, including existing neighborhoods,

neighborhood edges, and industrial zones. This planning has positioned the city to thrive and flourish into the future.

We would like to briefly present three additional clusters of development sites for your consideration. They have been organized based on geographic proximity, transit connectivity, and the ability to meet the real estate and place-making objectives outlined by Amazon.



1

**South Boston Waterfront / Downtown**



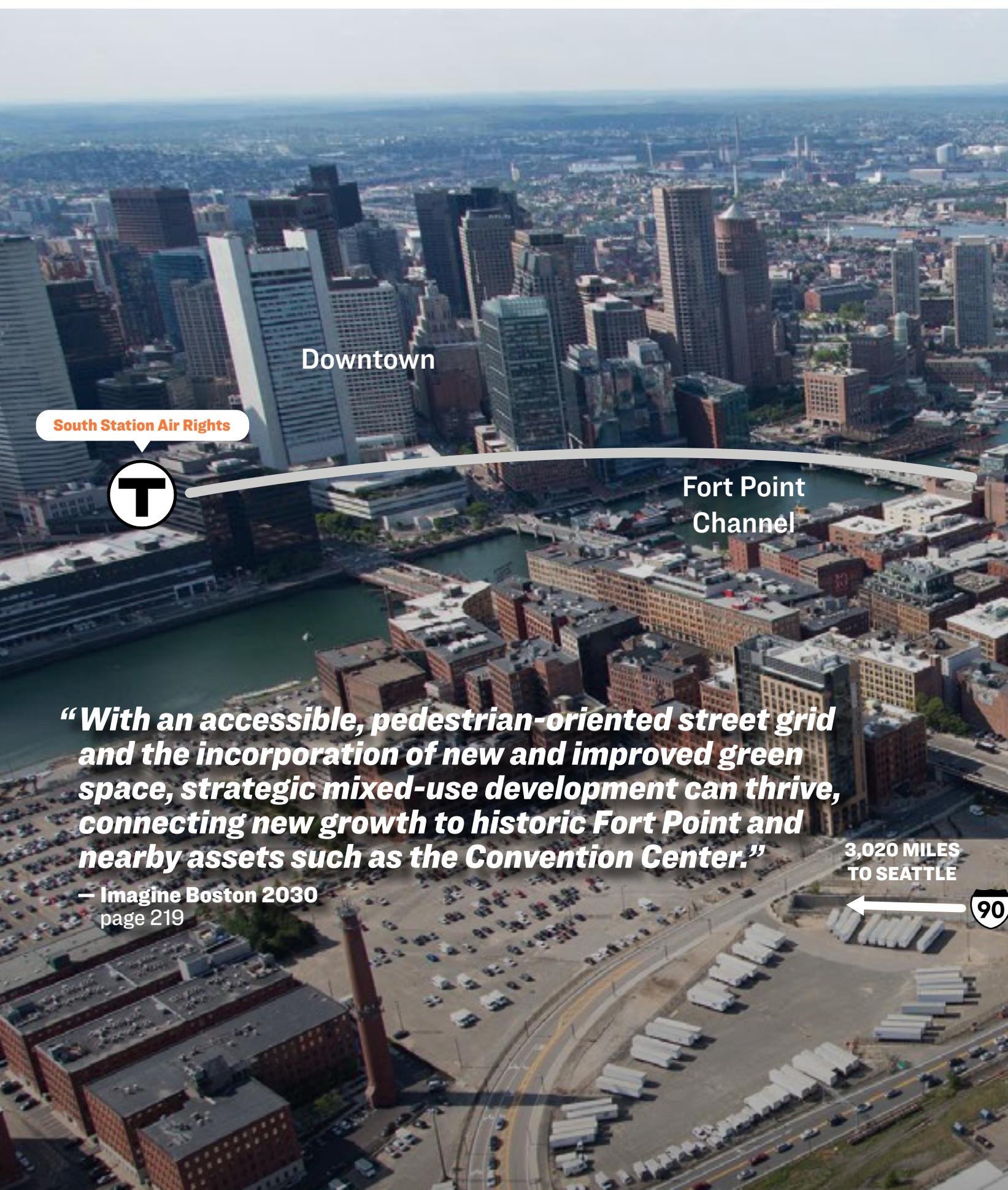
2

**South End / Back Bay / Roxbury**



3

**Allston / Brighton to South Station**



***“With an accessible, pedestrian-oriented street grid and the incorporation of new and improved green space, strategic mixed-use development can thrive, connecting new growth to historic Fort Point and nearby assets such as the Convention Center.”***

— **Imagine Boston 2030**  
page 219

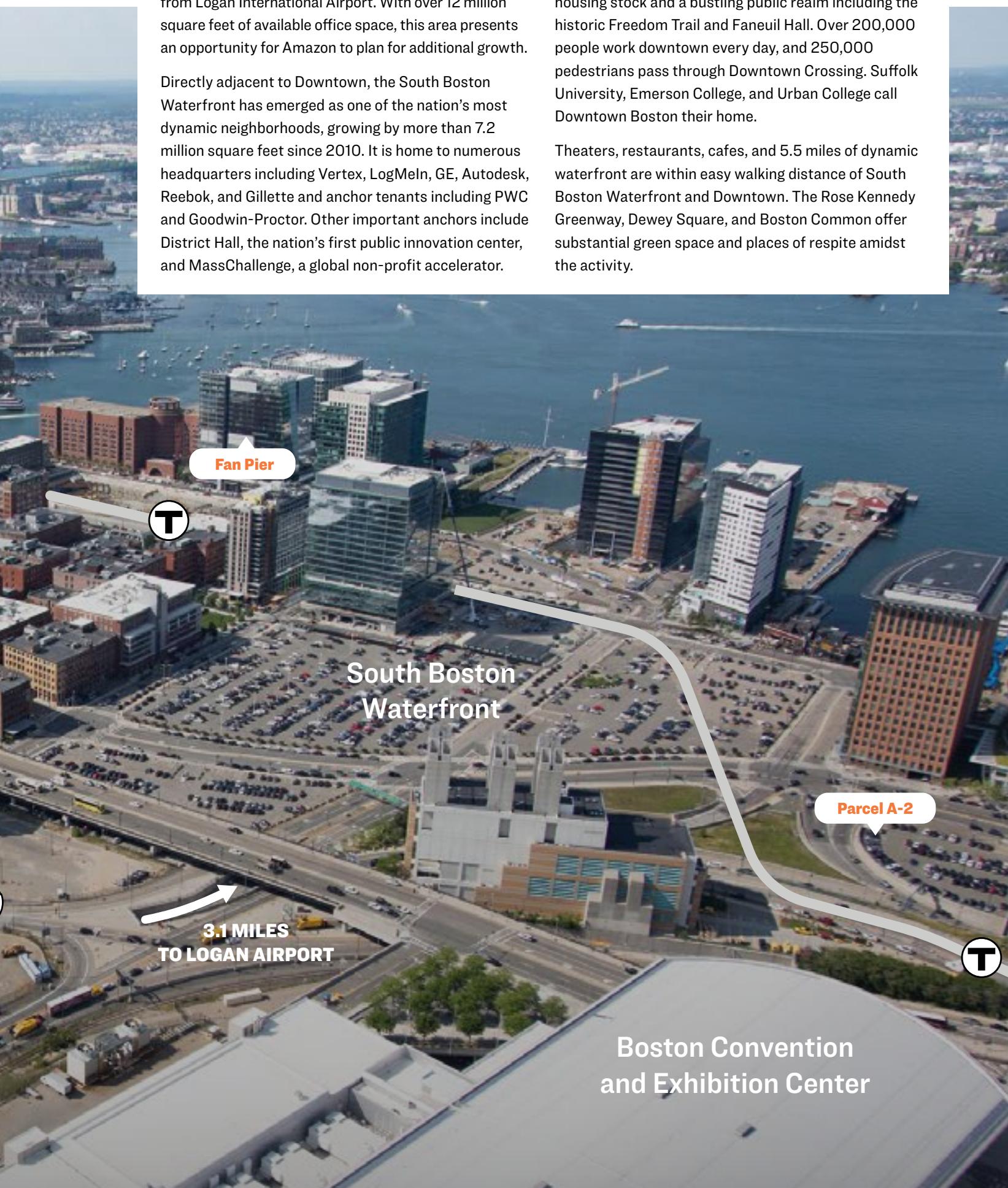
## 1. South Boston Waterfront and Downtown Boston

Downtown Boston and the South Boston Waterfront offer a unique opportunity for Amazon to exist in the midst of the bustling downtown area, just minutes away from Logan International Airport. With over 12 million square feet of available office space, this area presents an opportunity for Amazon to plan for additional growth.

Directly adjacent to Downtown, the South Boston Waterfront has emerged as one of the nation's most dynamic neighborhoods, growing by more than 7.2 million square feet since 2010. It is home to numerous headquarters including Vertex, LogMeln, GE, Autodesk, Reebok, and Gillette and anchor tenants including PWC and Goodwin-Proctor. Other important anchors include District Hall, the nation's first public innovation center, and MassChallenge, a global non-profit accelerator.

Downtown has served as Boston's hub since the 1700s. This increasingly mixed-use neighborhood is home to corporate headquarters, numerous hotels, diverse housing stock and a bustling public realm including the historic Freedom Trail and Faneuil Hall. Over 200,000 people work downtown every day, and 250,000 pedestrians pass through Downtown Crossing. Suffolk University, Emerson College, and Urban College call Downtown Boston their home.

Theaters, restaurants, cafes, and 5.5 miles of dynamic waterfront are within easy walking distance of South Boston Waterfront and Downtown. The Rose Kennedy Greenway, Dewey Square, and Boston Common offer substantial green space and places of respite amidst the activity.

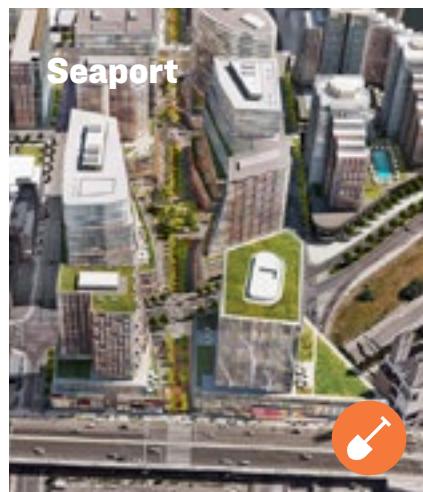
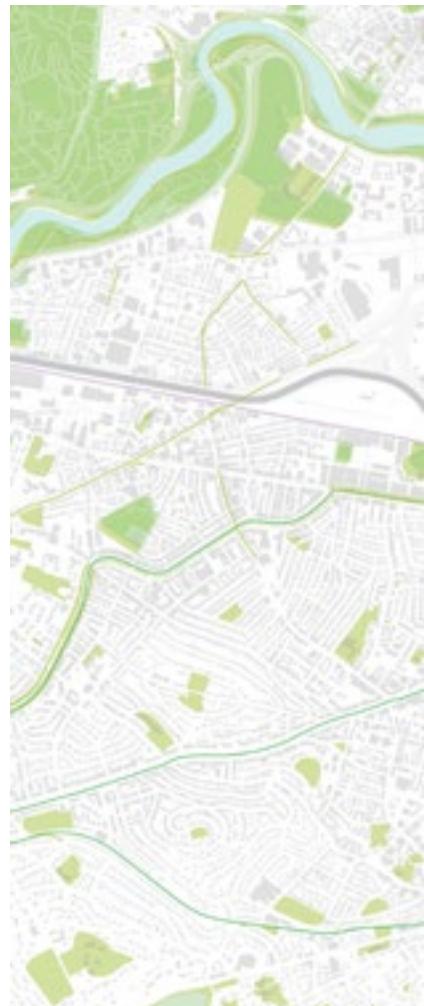


## 1. South Boston Waterfront and Downtown Boston

***“We saw first-hand how Boston’s leadership partnered with the private sector to create a vibrant community of innovation-based businesses surrounded by new hotels, housing, restaurants, and arts and entertainment facilities.”***

— **Jeff Leiden, M.D., Ph.D.**  
CEO & President, Vertex

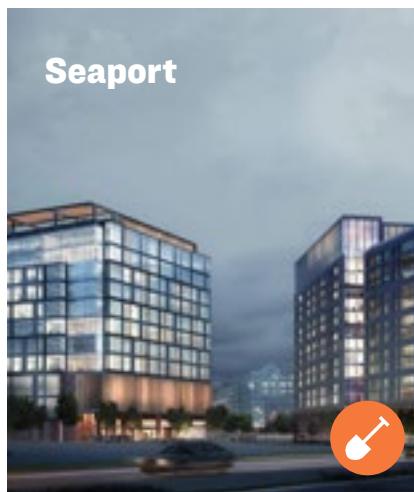
For additional development details and options in this cluster, see matrix on page 122.



- 08 minutes to Logan
- 15 minutes to Logan

### A. Seaport Square

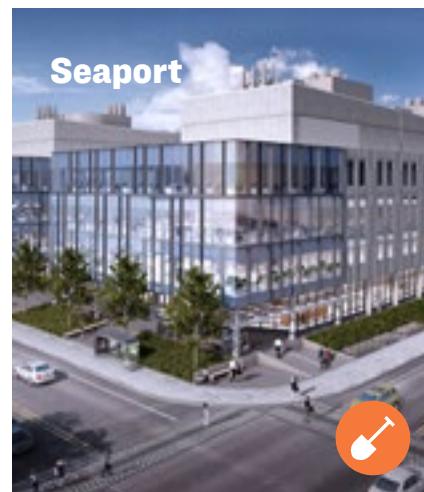
Blocks L-4, L-5, and D will consist of approximately 2.8 million square feet of office space. The site is a 15-minute walk to the MBTA South Station, and a 2-minute walk to the MBTA Silver Line Courthouse Station.



- 10 minutes to Logan
- 16 minutes to Logan

### B. Parcel Q1

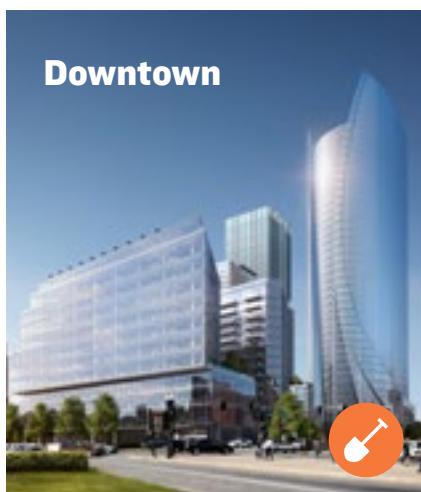
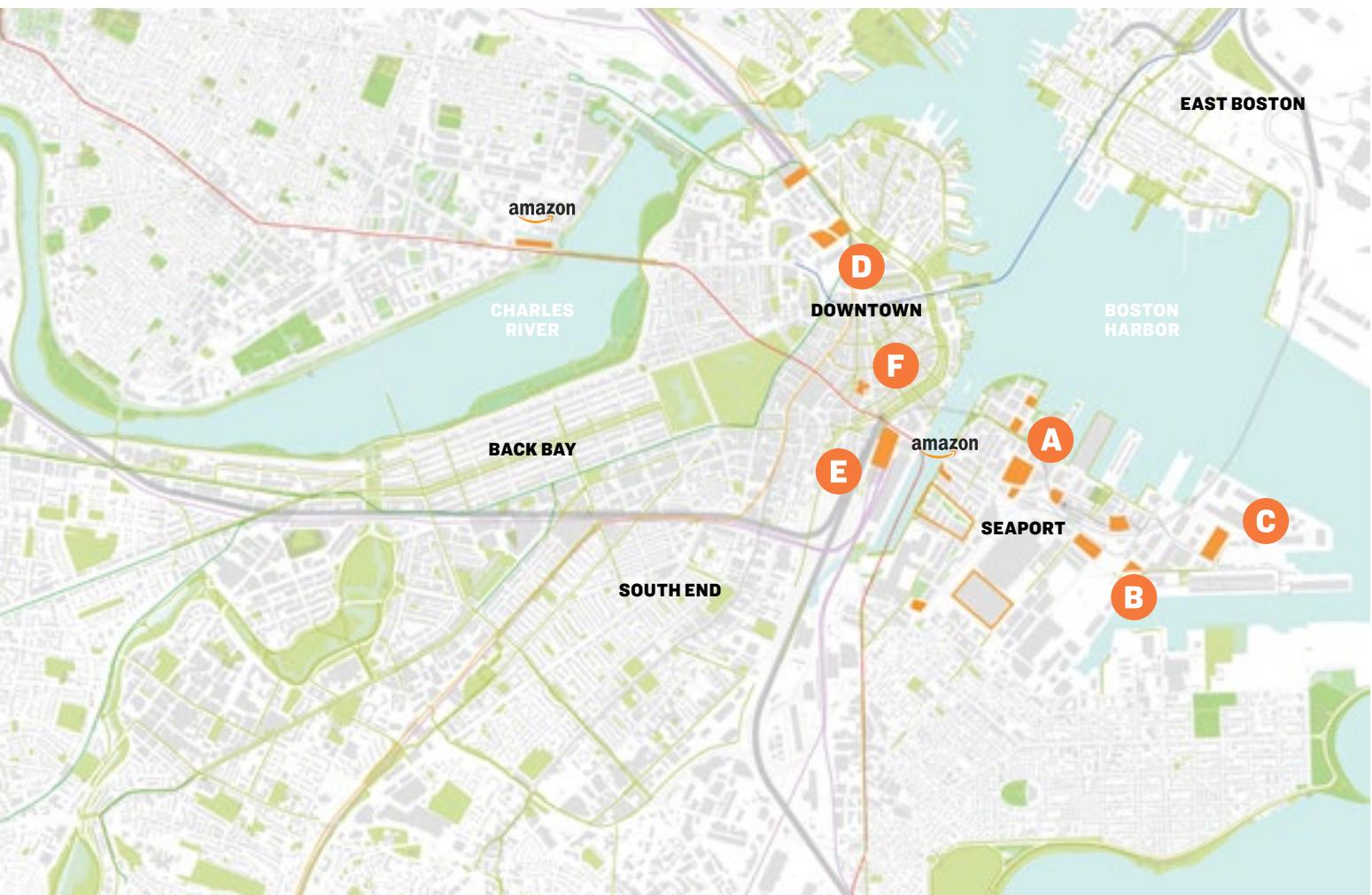
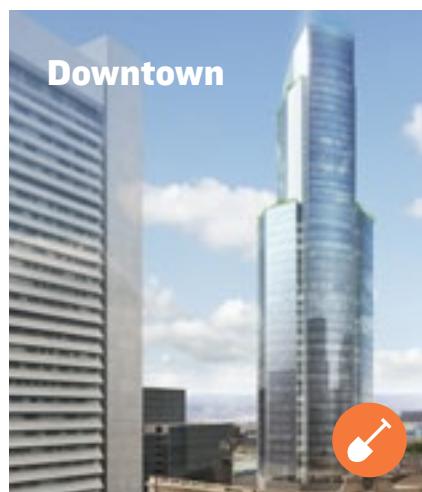
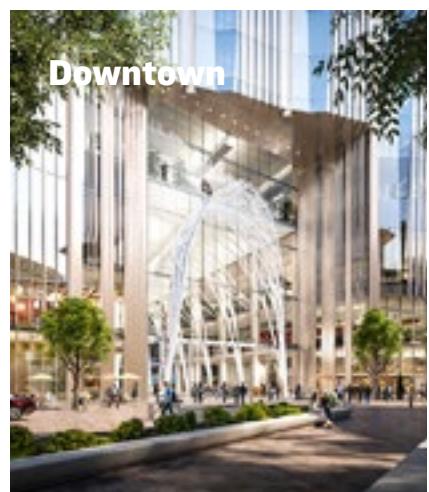
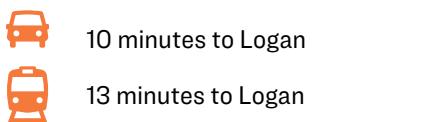
will contain 212,000 square feet of office space with ground-floor retail. A public plaza will be constructed at the building's ground level. The site is a 3-minute walk from the MBTA Silver Line Design Center stop.



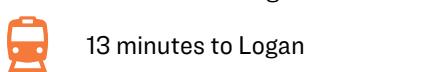
- 08 minutes to Logan
- 18 minutes to Logan

### C. Innovation Square

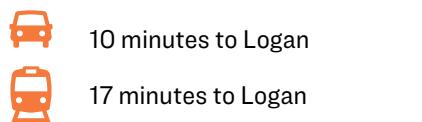
will contain approximately 360,000 square feet of research, development, and manufacturing space. The site is immediately adjacent to the MBTA Silver Line Tide Street stop.

**Downtown****Downtown****Downtown**

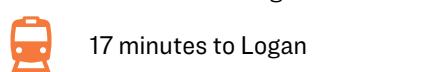
10 minutes to Logan



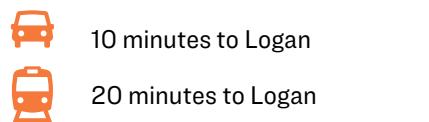
13 minutes to Logan



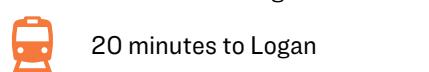
10 minutes to Logan



17 minutes to Logan



10 minutes to Logan



20 minutes to Logan

## D. Bulfinch Crossing

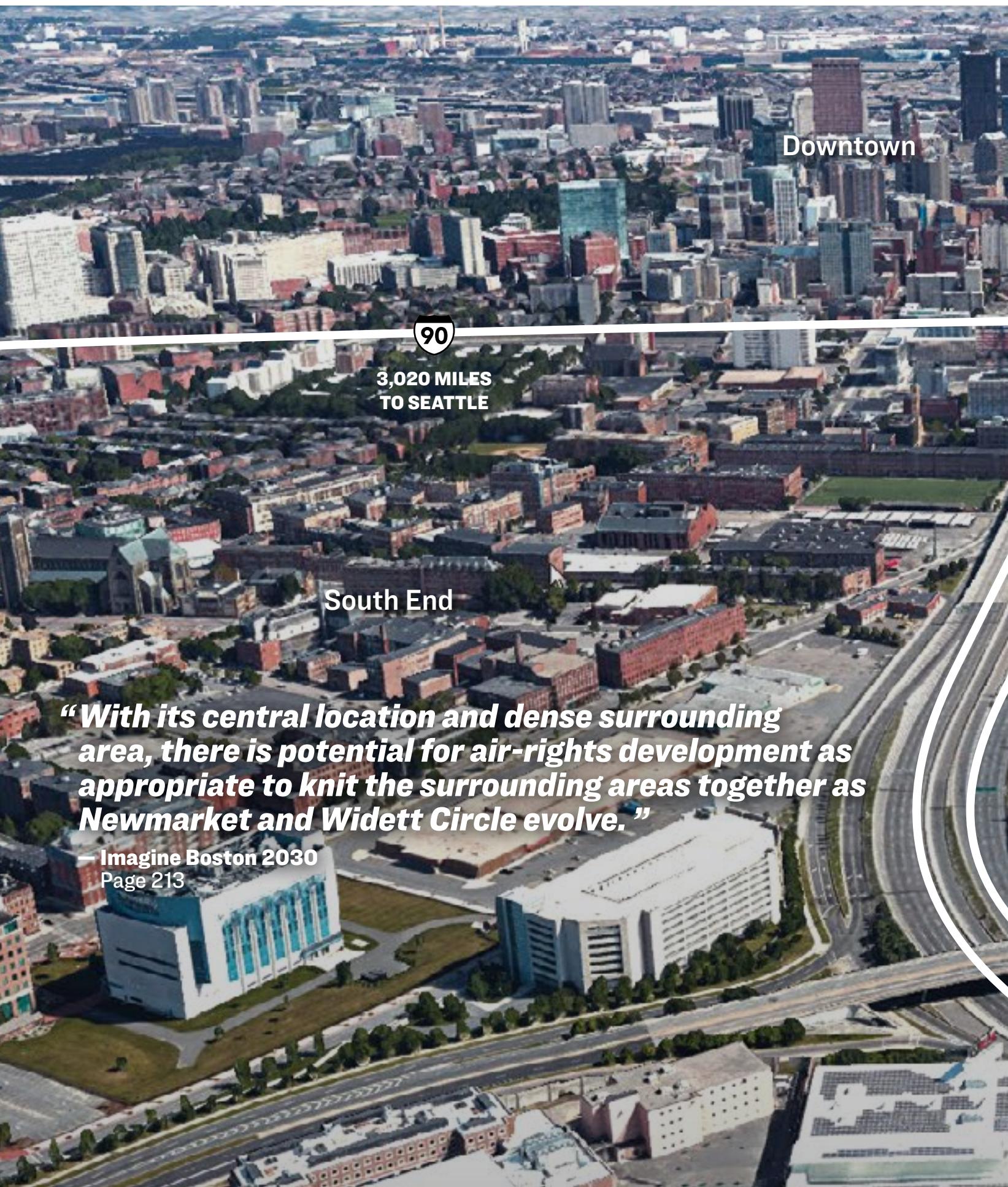
is a multi-phased project that will contain up to 1.3 million square feet of office space in a mixed-use development that will contain residential, hotel, and retail uses. The site is directly adjacent to the MBTA Orange and Green Line Stations.

## E. South Station

will contain up to 1.2 million square feet of office space in a three-phase mixed-use project containing residential and retail uses. The project is above the MBTA South Station with direct access to Red Line and Silver Line stops.

## F. Winthrop Square

will contain up to 635,000 square feet of office space in a 775-foot-tall mixed-use tower with a 65-foot-tall ground-floor public "Great Hall" lined with three levels of retail. The site is a 4-minute walk to the MBTA South Station and a 5-minute walk to the MBTA Downtown Crossing Station.



***“With its central location and dense surrounding area, there is potential for air-rights development as appropriate to knit the surrounding areas together as Newmarket and Widett Circle evolve.”***

— Imagine Boston 2030

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## 2. South End, Back Bay, Roxbury, and Widett Circle

One of Boston's most eclectic neighborhoods, the South End's Harrison Albany Corridor was rezoned in 2012 following a community planning process that envisioned the former industrial area as a mixed-use neighborhood. Recent development has demonstrated a strong demand for housing given the area's proximity to Downtown Boston. This cluster represents more than 8 million square feet of office development potential.

The historic neighborhood of Back Bay is situated along the Charles River, and is adjacent to Downtown and the Public Garden. Today Back Bay is known for its elegant architecture and bustling commercial streets. Stately Victorian row houses and brick sidewalks mark the residential streets of the area, including Beacon Street,

Marlborough Street, and Commonwealth Avenue. The Commonwealth Avenue Mall and Paul Dudley White Bicycle Path offer recreational opportunities, while the riverside Esplanade and Hatch Shell feature concerts and festivals. Back Bay is also home to the finish line of the world-renowned Boston Marathon.

Roxbury is located at the geographic heart of Boston, enclosing the center point of the city. It is home to a diverse community which includes African American, Hispanic, and Asian families, along with young professionals. Several parks offer residents substantial green space. Roxbury's Dudley Square is home to the Roxbury Innovation Center, a vibrant business incubator that has catalyzed dozens of businesses since its founding in 2014.



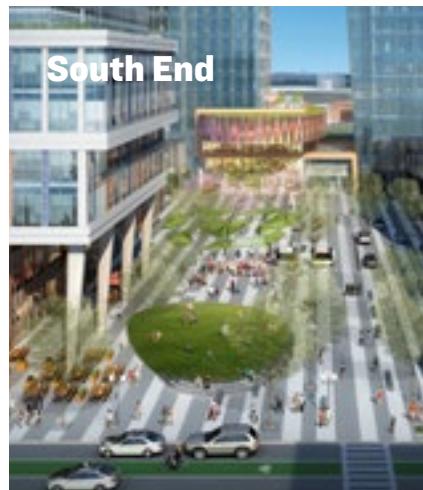
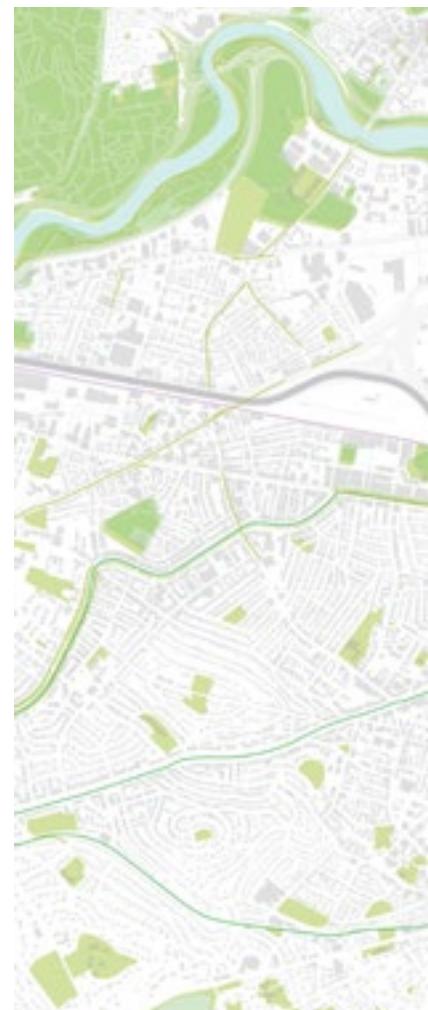
## 2. South End, Back Bay, Roxbury, and Widett Circle

**“A global leader in experiential learning, Northeastern University is the only university with campuses in both Boston and Seattle.”**

— Joseph E. Aoun

President, Northeastern University

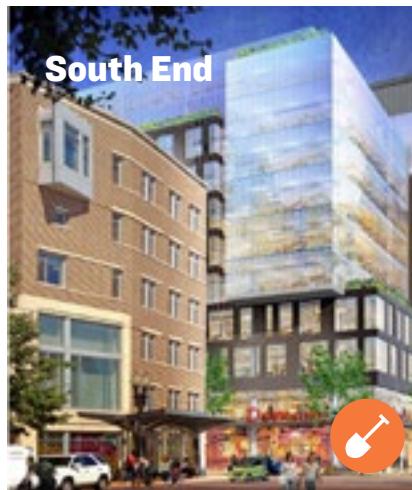
For additional development details and options in this cluster, see matrix on page 126.



- 08 minutes to Logan
- 37 minutes to Logan

### A. Exchange South End

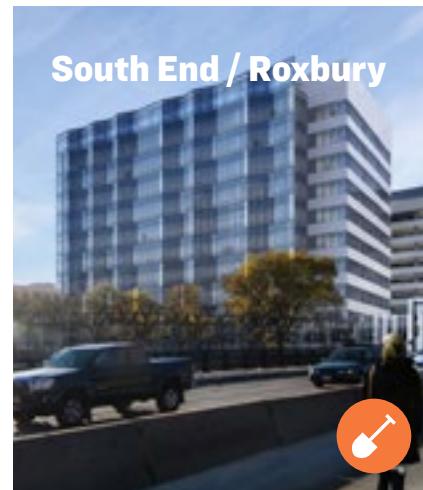
will contain up to 1.5 million square feet of office space in a mixed-use development with retail, cultural, and open space uses. The site is a less-than 10-minute walk to the MBTA Union Park Street and East Newton Street Silver Line stops.



- 11 minutes to Logan
- 23 minutes to Logan

### B. EB 80

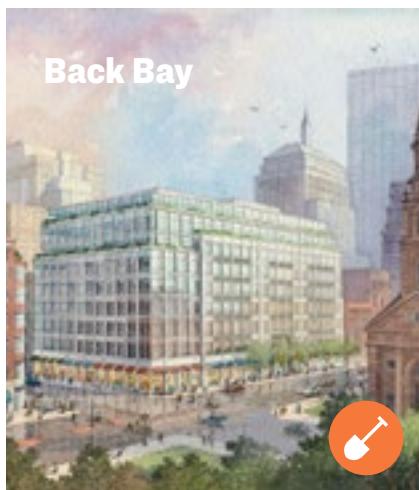
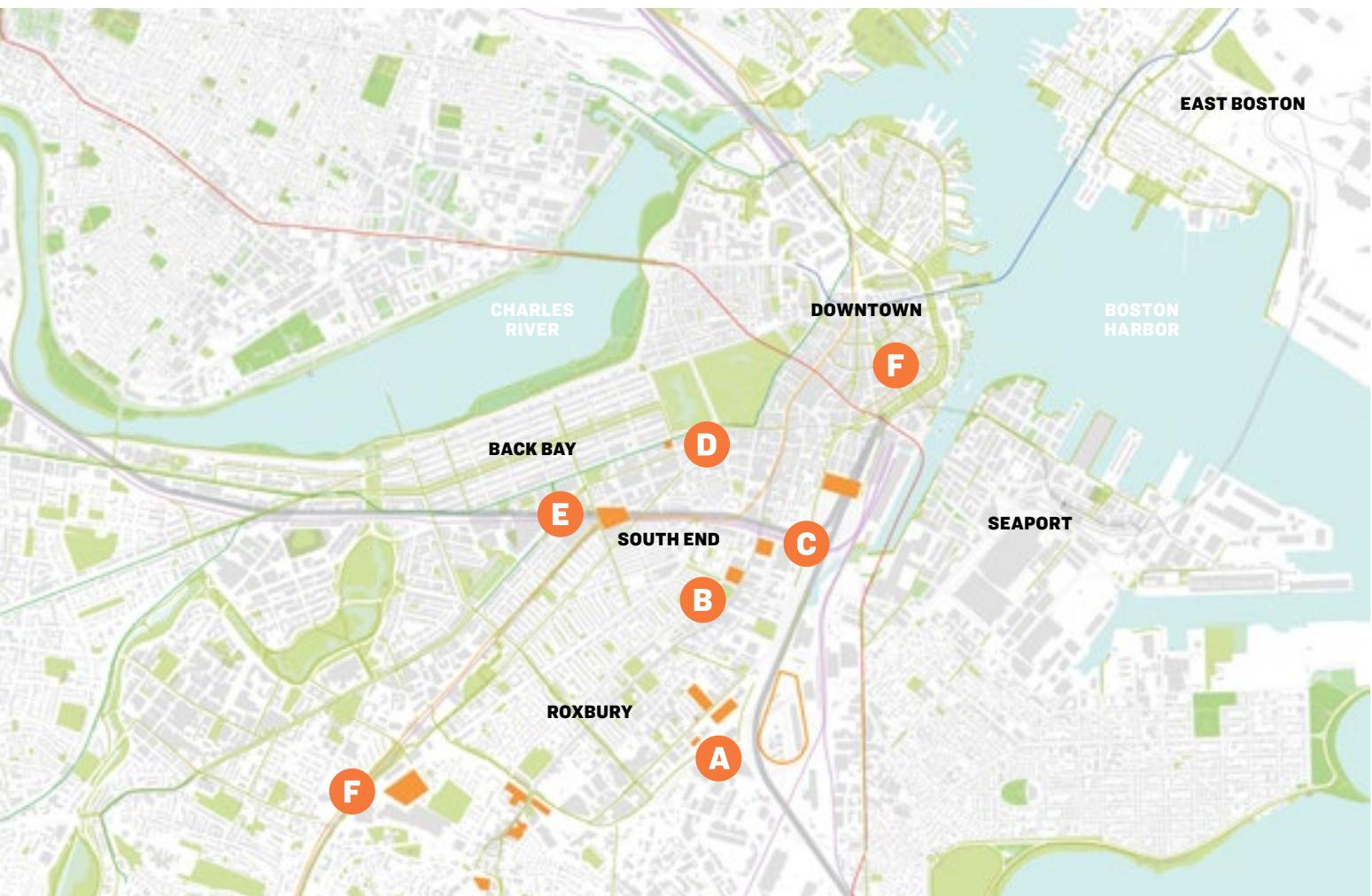
will contain up to 1 million square feet of office space in a multi-phased mixed-use development containing retail uses. The site is a 12-minute walk from the MBTA Red Line Broadway Station and across the street from the MBTA East Berkeley Street Silver Line stop.



- 09 minutes to Logan
- 22 minutes to Logan

### C. 321 Harrison

will contain approximately 216,000 square feet of office space. The site is a 7-minute walk from the MBTA Orange Line Tufts Medical Center Station and is adjacent to the MBTA Herald Street Silver Line stop.



- 16 minutes to Logan
- 23 minutes to Logan

### D. 350 Boylston Street

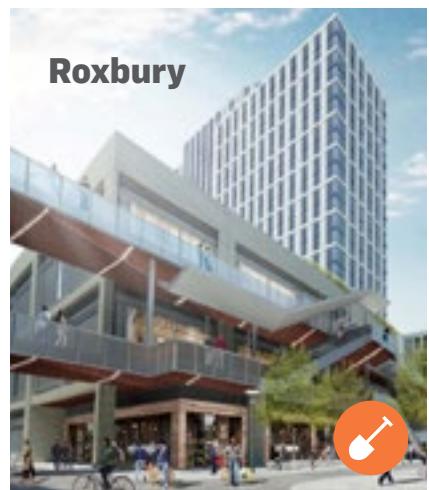
will contain up to 220,000 square feet of office space in a mixed-use development containing retail uses. The site is adjacent to the MBTA Green Line Arlington Station and a 10-minute walk to the MBTA Orange Line Back Bay Station.



- 13 minutes to Logan
- 19 minutes to Logan

### E. BB / SE Gateway

project will contain up to 592,000 square feet of office space in a mixed-use development containing residential and retail uses. The site is above the MBTA Orange Line Back Bay Station.



- 14 minutes to Logan
- 32 minutes to Logan

### F. Tremont Crossing

will contain up to 108,000 square feet of office space in a mixed-use development containing residential, retail, cultural, and civic uses. The site is a 10-minute walk from the MBTA Silver Line at Dudley Station.

### 3. Allston / Brighton to South Station

Best known for its student population and independent music scene, Allston/Brighton is one of the city's most energetic and diverse neighborhoods. Home to Harvard University's expanding campus, this neighborhood includes a strong small business market as well as Genzyme and New Balance headquarters. Commonwealth, Brighton, and Harvard Avenues feature hip bars and unique ethnic restaurants, creating hubs of activity throughout the community. Harvard, which owns more land in Boston than in Cambridge, is a major anchor of the neighborhood. This cluster provides 4.2 million square feet of office space for development, with the potential for an additional 4–8 million square feet of development.

Brighton is home to a vibrant mix of old and new, residential and commercial. Families who have called Brighton home for generations share the neighborhood with recent immigrants, students from nearby colleges, and young professionals. This diverse population attracts an interesting mixture of businesses, nonprofits, medical and educational institutions to the area. The eclectic commercial centers of Brighton Center, Cleveland Circle, and Oak Square offer residents and visitors a rich range of options, from ethnic grocery stores to cozy neighborhood pubs. Major anchors of the neighborhood include St. Elizabeth's Medical Center, Boston College, and WGBH.



Harvard ERC

Allston

***“To create new jobs and strengthen career pathways, Boston can encourage the growth of diverse new spaces to work. This new growth can also play an important role in stitching together neighborhoods and supporting investment in main streets, parks, and transportation.”***

— Imagine Boston 2030  
Page 20



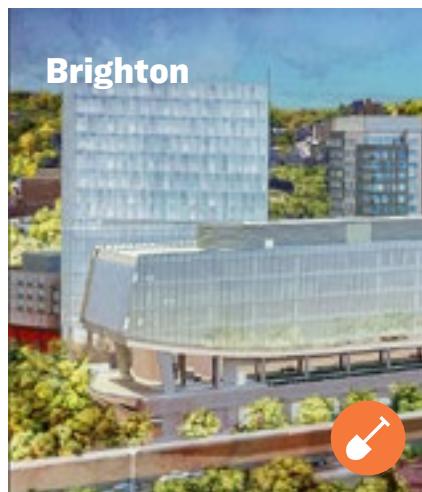
### 3. Allston / Brighton to South Station

**“Boston’s innovation economy is an incubator of innovation, collaboration, and entrepreneurship. We have companies doing amazing things in robotics and cyber security, digital health, and self-driving cars, in consumer and business tech. We feed off each other and support each other.”**

— Jason Robins

Co-founder and CEO, DraftKings

For additional development details and options in this cluster, see matrix on page 130.



- 22 minutes to Logan
- 33 minutes to Logan

#### A. Boston Landing

will contain up to 320,000 square feet of office space in a mixed use development containing residential, retail, sports, and recreational uses. The site is adjacent to the brand-new, \$25M Boston Landing MBTA Station.



- 22 minutes to Logan
- 33 minutes to Logan

#### B. Allston Yards

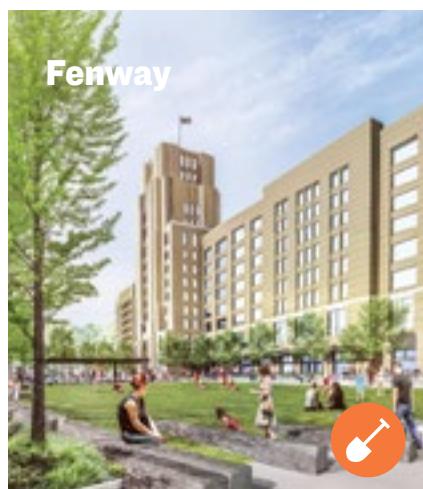
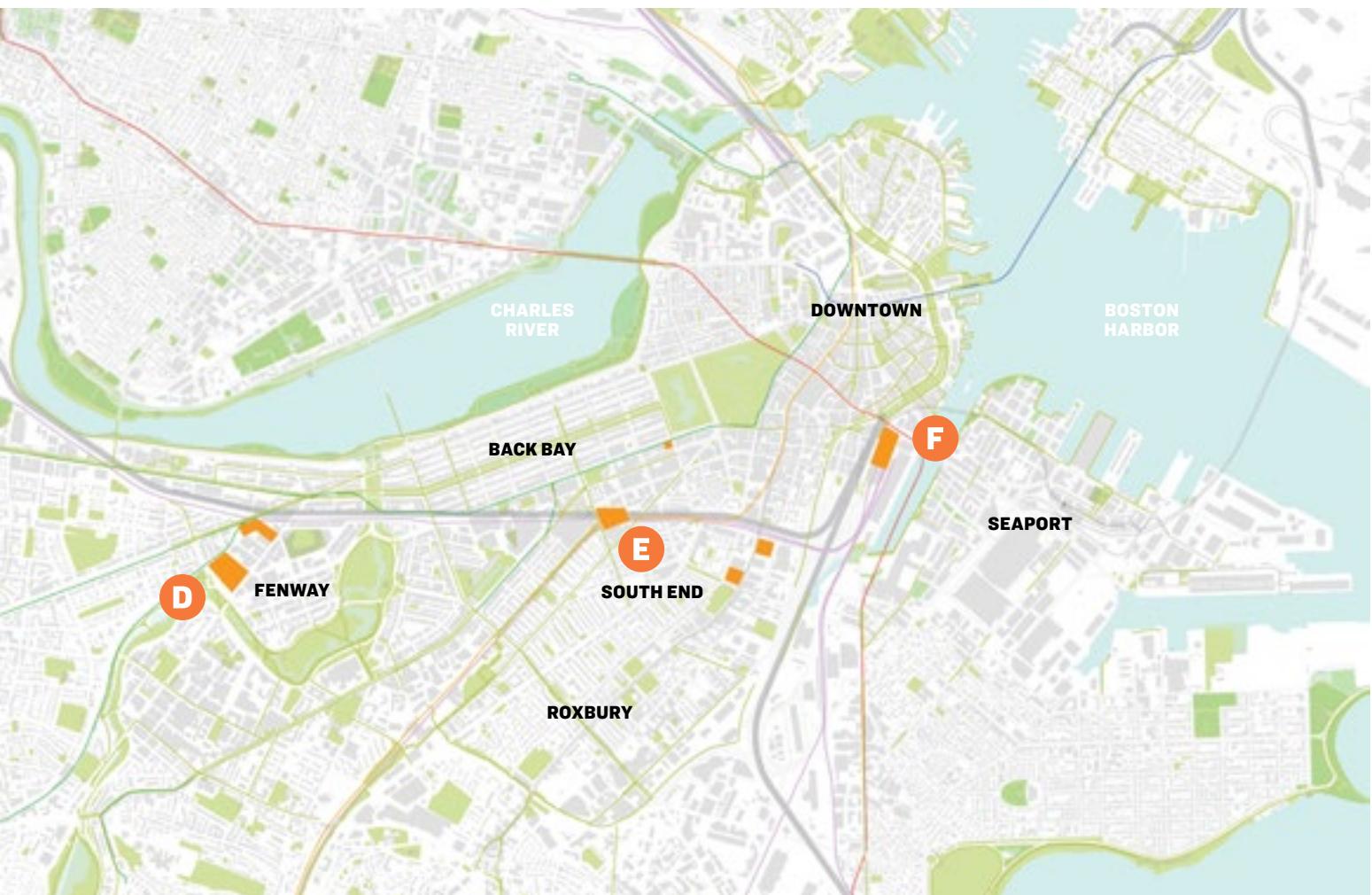
will contain up to 300,000 square feet of office space in a multi-phase mixed use development containing residential, retail, and open space uses. The site is adjacent to the MBTA Boston Landing Station.



- 12 minutes to Logan
- 28 minutes to Logan

#### C. Harvard ERC

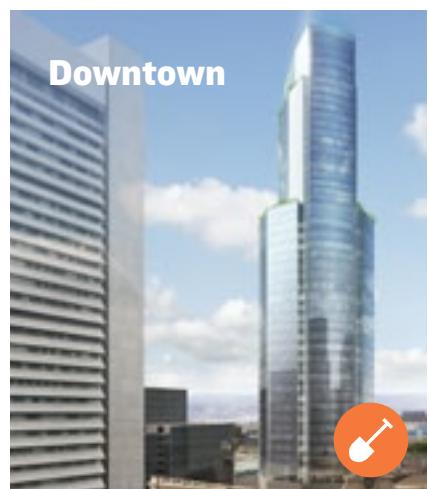
is adjacent to the Harvard Business School and emerging Science and Engineering Center. The ERC is envisioned as an innovation district prioritizing collaborations in research and entrepreneurship. Permitting to begin Fall 2017 with initial phase of up to 500,000 square feet of office.



Fenway



Back Bay



Downtown

 14 minutes to Logan  
 28 minutes to Logan

 13 minutes to Logan  
 20 minutes to Logan

 09 minutes to Logan  
 15 minutes to Logan

## D. Landmark Center

will contain up to 1.2 million square feet of office space, including approximately 500,000 square feet of new space in a multi-phase mixed use development. The site is adjacent to the MBTA Green Line at Fenway Station and a 10-minute walk to the MBTA Yawkey Station.

## E. BB / SE Gateway

The Back Bay/South End Gateway project will contain up to 592,000 square feet of office space in a mixed use development containing residential and retail uses. The site is above the MBTA Orange Line Back Bay Station, Commuter Rail, and High Speed Rail.

## F. South Station

will contain up to 1.2 million square feet of office space in a three-phase mixed-use project containing residential and retail uses. The project is above the MBTA Red Line South Station stop.

# Boston, Your Community Partner

***“We want all companies to thrive in Boston. Our dedicated team works alongside companies, large and small, to understand their business needs and help them forge partnerships with academia, potential talent, business networks, and our neighborhoods to support their growth and strengthen our community.”***

— **John Barros**

Chief of Economic Development, City of Boston

The City of Boston looks forward to fostering a long-term partnership with Amazon that will support the development of Amazon's second North American headquarters while ensuring the city stays true to its principles of guiding inclusive growth thoughtfully and responsibly in Boston's neighborhoods.

This chapter has been organized into three categories: Investments, Incentives, and Initiatives. Each category presents opportunities for collaboration with Amazon as we work together in building a long-term partnership to enhance the experience of both our residents and Amazon employees in the city. Boston looks forward to discussing this chapter in further detail with Amazon.



## Investments. Yes.

The City of Boston and Commonwealth of Massachusetts are committed to strengthening connectivity, education, sustainability, and more as we plan for our future. These investments will benefit our residents throughout the city and create a great place for your future headquarters.

As part of the Imagine Boston 2030 planning process, the City of Boston has planned for future investments through the Imagine Boston 2030 Capital Plan. Highlights of citywide investments that will benefit Boston, including the East Boston neighborhood, are outlined below.

### Imagine Boston 2030 Capital Plan FY 2018–2022

Investment	Brief Description	Total Amount Approved FY 2018–2022
Fiber Expansion	Represents investment in BoNet infrastructure, including extending the fiber network reach 100 BPS schools and providing public WiFi opportunities.	\$12,310,690 (\$9,000,000 in FY18)
Public Library and Boston Centers for Youth and Families	Includes enhancements, renovations, and investments in the key public assets of Boston's neighborhoods.	\$181,458,675 (East Boston: \$17,375,000)
Percent for the Arts	Represents one percent of the city's annual capital budget, designated for the commissioning of permanent, public art in municipal spaces.	\$9,300,000
Open Space	Includes enhancements, renovations, and investments in neighborhood open spaces.	\$103,537,112 (East Boston: \$3,100,000)

The Commonwealth of Massachusetts also plans to invest \$17.6 billion over the next five years, including over \$7 billion for the MBTA. The MBTA investments feature:

- \$1.5 billion to purchase 400 new Red and Orange Line cars and upgrades by 2022, significantly increasing capacity and reliability of the region's busiest subway lines.
- \$2 billion to extend the Green Line, a major light rail.
- \$30 million to improve and extend the Silver Line Bus Rapid Transit (BRT) and bus system in East Boston and Chelsea.

Additionally, the Commonwealth of Massachusetts has several key investments planned in transportation, higher education, and environment as outlined in the FY 2018 Capital Plan.

**Commonwealth of Massachusetts FY 2018 Capital Plan**

Investment	Brief Description	Total Amount Approved FY 2018
Muddy River Flood Control and Historic Preservation Project	Design and construction for Muddy River Restoration to improve flood control, water quality, aquatic and riparian habitat, and rehabilitate the landscape and historic resources. Leverages Federal and local contributions.	\$7,000,000
Storrow Drive Tunnel	Study and maintenance repairs for Storrow Drive Tunnel to ensure structural integrity and safety.	\$1,000,000
Morrissey Boulevard Project	Design and reconstruction of Morrissey Boulevard, which has been impacted by infrastructure, traffic volume, and sea level changes.	\$5,000,000
Storrow Drive, Soldiers Field Road, and Embankment Road Lighting Replacement	Energy efficient upgrades for DCR parkway lighting infrastructure, including associated bases, poles, transformers, and fixtures.	\$2,100,000
UMass Boston—Substructure Demolition / Quadrangle Development	State share for study, design, demolition and renovations to address the deterioration of the existing parking garage and raised plaza at the center of the UMass Boston campus.	\$6,000,000
Roxbury Community College—Academic Buildings Modernization	Study, design and construction of renovations to buildings 2 and 4, providing a new Allied Health Center, reconfigured library, student commons and cafeteria, and addressing deferred maintenance, energy improvements and accessibility.	\$26,000,000
Roxbury Community College—Reggie Lewis Center	Study, design and construction for repairs and upgrades of the Reggie Lewis Center.	\$1,300,000
Roxbury Community College—Energy / Water Upgrades	Comprehensive Energy and Water Efficiency Project at RCC including transition from inefficient electric heat to new hybrid gas and ground source heat pump, lighting, HVAC, electric vehicle charging stations, cooling tower improvements, controls, and photovoltaics.	\$7,500,000

Investment	Brief Description	Total Amount Approved FY 2018
Massachusetts College of Art— Tower Redevelopment	Study of redevelopment opportunities for MassArt Tower and surrounding buildings at MassArt.	\$250,000
MBTA—State of Good Repair	Projects to improve state of good repair and reliability of existing assets including signals, track power, revenue vehicles, bridges, and facilities.	\$754,683
Red and Orange Line Vehicles	Purchase of Red and Orange Line vehicles at the MBTA.	\$71,508,439
Road and Transportation Improvements at UMass Boston	Road and related infrastructure work around the UMass Boston campus serving the entirety of Columbia Point.	\$25,000,000
Boston Harbor Dredging	Represents the funding for the state share of costs related to the dredging of Boston Harbor. Dredging will deepen Boston's main shipping channel which will improve our trade capacity and support the Commonwealth's economy. The project includes matching funding from the Army Corps of Engineers (\$220 million) and Massport (\$55 million). \$30 million in state capital funds (\$75 million over the life of the project) for Boston Harbor dredging, which will be matched by \$55 million from MassPort and \$220 million from the federal government over the life of the project. In FY 18, this includes \$30 million state bond cap, \$90 million in federal funding, and \$30 million in other funding.	\$150,000,000
MBTA—Rail Enhancement Projects	Various infrastructure and improvement projects that promote reliability, modernization, and targeted growth throughout the system.	\$81,826,446
MBTA—Capital Support	Supplemental capital funding for state of good repair and modernization projects across the system including signal upgrades and station improvements.	\$60,000,000

The City of Boston proposes integrating the following investments into the city's Capital Plan and public infrastructure investments to benefit your future headquarters as well as the existing neighborhood.

Proposed Investment	Brief Description	Total Estimate
Bennington Street (East Boston) Improvements	This potential capital investment would enhance road improvements on Bennington Street to improve the flow of people along this major artery in East Boston.	\$5,000,000
Expansion of the East Boston Greenway	This potential capital investment proposes to expand the East Boston Greenway from Constitution Beach to Suffolk Downs, Belle Island Marsh and Revere Beach to extend the open space network and bike route connectivity to numerous transit nodes.	\$7,600,000– \$11,300,000

The City of Boston will explore with you and the Commonwealth of Massachusetts additional capital projects to enhance connectivity for Amazon and the surrounding community. Potential tools by the Commonwealth of Massachusetts include the MassWorks Infrastructure Program.

Proposed Investment	Brief Description	Total Estimate
MBTA Red Line - Blue Line Connector	The Red Line - Blue Line connector, an underground tunnel that will extend the Blue Line by one station to connect to the Red Line, has the potential to provide environmental and economic benefits with increased ridership and mobility for local and regional commuters.	\$746,000,000
Water Ferry Transportation Service	Investing in the Lewis Wharf Dock will create enhanced water ferry service in Boston Harbor, connecting the neighborhoods of East Boston to the North End, Charlestown, and South Boston via water transportation.	\$1,600,000
Route 1A Improvements	Investing in road improvements for Route 1A will enhance connectivity on a major artery that leads into East Boston, Revere, and municipalities north of these communities.	\$40,000,000
MBTA Blue Line Commuter Rail Connector	This project would add a new commuter rail station at Wonderland Station to connect East Boston via rail transit to neighborhoods north of the city.	\$25,000,000

## Incentives. Yes.

The City of Boston proposes leveraging inclusionary development policy dollars to invest in opportunities that support housing and workforce development to benefit Amazon's future employees and Boston residents.

Proposed Incentive	Brief Description	Proposed Amount
Diverse Housing Stock	Leverage funding over ten years to invest in affordable housing creation and preservation strategies to maintain stability in the housing prices for the neighborhood of the proposed 8 million square feet of commercial development.	\$75,000,000
Tech Talent Pipeline Grants	Leverage funding over ten years to dedicate to workforce training grants and resources for building a tech talent pipeline for your employees and local tech companies.	\$13,100,000
Small Business Loans	To ensure small businesses have the opportunity and access to leverage e-commerce's growing presence in our 21st century economy, the City will build on its existing small business resources to include an enhanced focus on loans and workshops to help small businesses do business, compete, and thrive as both existing brick and mortar structures and digitally.	\$4,000,000

In consideration of local property tax incentives, the City of Boston has the following tools:

Local Property Tax Incentive Tool	Brief Description
Payment In Lieu of Tax Programs	Payment in lieu of tax programs are programs under Massachusetts General Law Chapter 121A and Chapter 121B
Tax Increment Financing (TIF)	As part of the Massachusetts Economic Development Incentive Program, a TIF is a tax incentive available to businesses in Massachusetts. In return for substantial job creation, a municipality may provide a business with real estate property tax relief based on the business's incremental real estate property taxes for up to 20 years. In addition to a real estate property tax exemption, a business may be eligible for a personal property tax exemption for existing and new property (personal property is considered movable property, exclusive of land and buildings). Tax Increment Financing is not the same in Massachusetts as it is in most other states, where TIFs are used to fund infrastructure improvements using incremental property tax revenues. Massachusetts does utilize this mode of financing, but we refer to it as District Improvement Financing (DIF).

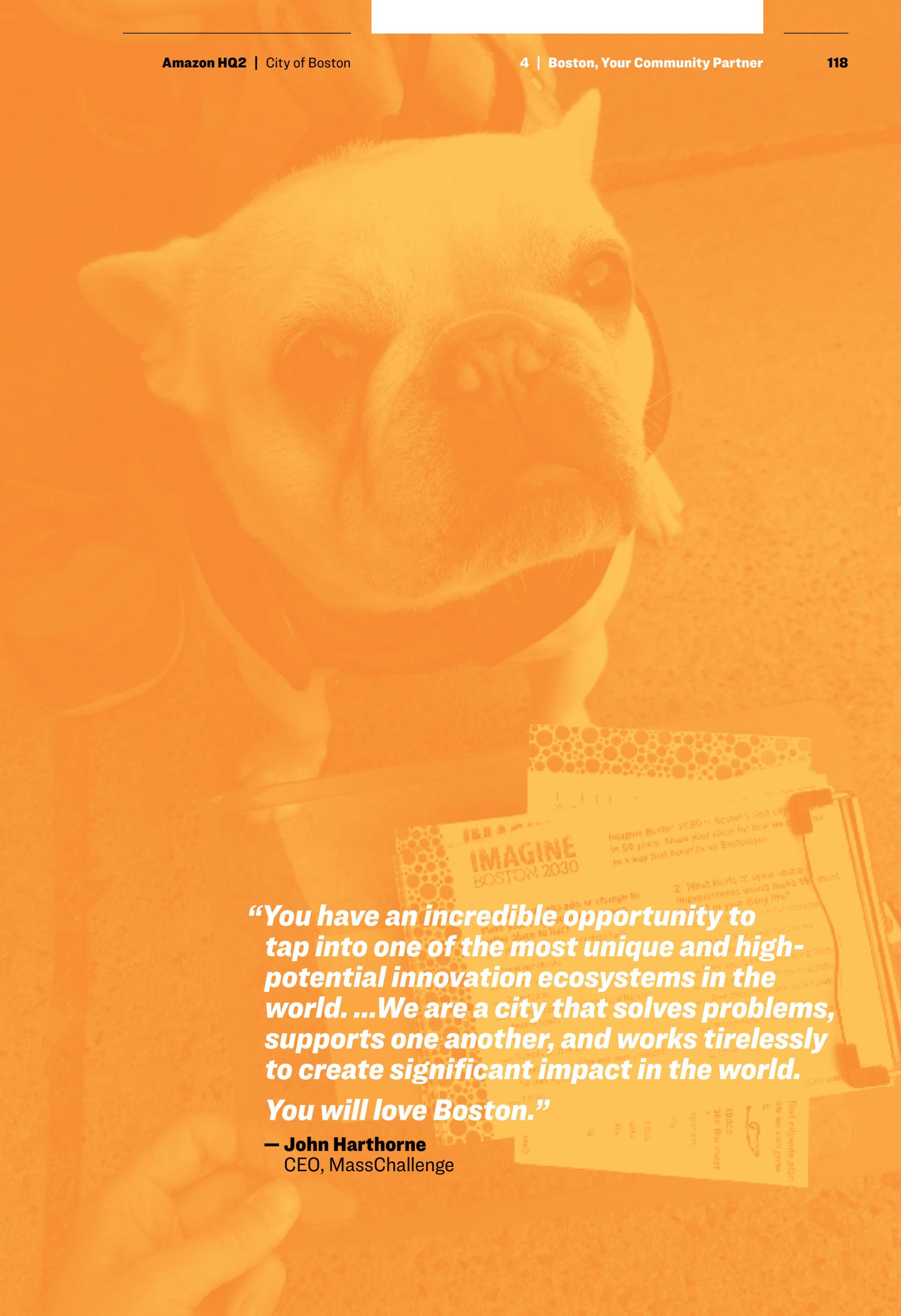
The City of Boston is interested in exploring additional resources in welcoming Amazon and its second headquarters to Boston.

Proposed Resource	Brief Description
Permitting Ombudsman	Through the creation of a Amazon Task Force, the City of Boston will dedicate a Permitting Ombudsman to serve as a single point of contact to support a seamless permitting process for the multiple phases of development.
Workforce Ombudsman	As part of the Amazon Task Force, the City of Boston will dedicate a Workforce Ombudsman to serve as a single point of contact to support coordination with the city as well as workforce providers and talent pipeline resources. This ombudsman will develop and enhance career pathways for Amazon and area tech companies that are seeking skilled employees.
Community Relations Ombudsman	As part of the Amazon Task Force, the City of Boston will dedicate a Community Relations Ombudsman to serve as a single point of contact to support coordination across higher education, K-12 schools, businesses, community-based organizations and more within Boston.
Homeownership	Through the Boston Home Center's "Buy In Boston" Program, the City of Boston will help eligible Amazon employees purchase homes within Boston, based on income eligibility, by providing a zero interest loan to assist employees with down payments.
JetBlue Flight Service	As Amazon grows to its stated size in Boston, JetBlue expects that Amazon will become the largest purchaser of air travel in and out of Boston. As the leading carrier for Boston, JetBlue will ensure that Amazon is provided a best-in-class discount program for corporate travel; equal to or better than any other JetBlue customers of similar size. This proposal also builds on the existing relationship between JetBlue and Amazon, noting their broad marketing partnership.
Yankee Line Transportation	Yankee Line Transportation, based in Boston since 1980, provides employee commuter coach and first/last mile transportation solutions to many Boston area employers including Vertex, Biogen, Google and Boston Scientific. Yankee Line is interested in exploring a partnership with Amazon for its second North American headquarters in Boston. Similar to Amazon Ride in Seattle, Yankee Line works with Boston employers to develop and operate robust employee commuter programs which provide elevated options for employee connectivity. These enhanced connectivity options have been designed to complement Boston's existing transportation options by providing more one-seat commute options during peak travel periods.
Boston's Business Network	Through the region's strong business network, the city will help bridge connections within the business community by fostering relationships with partners such as the Greater Boston Chamber of Commerce, the Massachusetts Technology Leadership Council, the New England Venture Capital Association, and the Alliance for Business Leadership.

## Initiatives. Yes.

The City of Boston has identified proposed initiatives that would benefit your future headquarters in Boston and further connect you to Boston's communities.

Proposed Initiative	Brief Description
Tech Talent Exchange	The City of Boston, Skillworks, and the Boston Private Industry Council propose partnering with Amazon on the launch of Tech Talent Exchange (TTX), an initiative proposed to enhance alignment between the demand for tech talent with the tech talent supply needed by companies like Amazon and other Boston tech employers and the opportunities sought by job seekers from diverse demographics and economic backgrounds in the city. In full build out, TTX will create a physical and virtual hub to connect job seekers, employers, and education / training providers to each other through a range of services.
Innovation Center	With the potential of an innovation center at your second headquarters, Amazon would have the opportunity to collaborate directly with local entities like the Mayor's Office of New Urban Mechanics, MassChallenge, MassRobotics, and the Tech Talent Exchange (see above) to foster innovation, talent development, and long-term partnerships with the community.
City As Your Lab	Boston offers a partnership to help Amazon design, test and showcase the future city through testing new Amazon technologies to enhance smart city advancements in Boston.
Establish Seaplane Operations	Establishing seaplane operations in the Boston Harbor will provide scheduled service between Boston and New York City, providing additional means of transportation between these two major metropolitan areas (in addition to bus, train, and air). There has been considerable collaboration to date with government agencies on the feasibility and implementation of this service.
Small Business Procurement	The City of Boston will partner with Amazon to explore procurement opportunities for small businesses in Boston to compete as vendors for city, state, and private sector opportunities.
Yankee Bus Line Service	Yankee Line Transportation, based in Boston since 1980, provides employee commuter coach and first/last mile transportation solutions to many Boston area employers including Vertex, Biogen, Google and Boston Scientific, and is interested in exploring a partnership with Amazon for its second North American headquarters in Boston. Similar to Amazon Ride in Seattle, Yankee Line works with Boston employers to develop and operate robust employee commuter programs which provide elevated options for employee connectivity. These enhanced connectivity options have been designed to complement Boston's existing transportation options by providing more one-seat commute options during peak travel periods.
Boston's Business Network	Through the region's strong business network, the City will help bridge connections within the business community with partners such as the Boston Chamber of Commerce, Massachusetts Technology Leadership Council, New England Venture Capital Association, and the Alliance for Business Leadership.



***“You have an incredible opportunity to tap into one of the most unique and high-potential innovation ecosystems in the world. ...We are a city that solves problems, supports one another, and works tirelessly to create significant impact in the world. You will love Boston.”***

— **John Harthorne**  
CEO, MassChallenge

# There's More

**Chapter 5 includes complete responses by the City of Boston to information requested in Amazon's RFP for its second North American headquarters.**

Boston would be thrilled to welcome Amazon's second North American headquarters to our city. As part of our response to Amazon's Request for Proposal, this chapter provides information requested.

Boston is a rapidly growing, increasingly diverse, and well-educated city with opportunities for all. As we grow, we are also planning for our future. Over the course of two years, the city engaged more than 15,000 Bostonians to help lay the framework and vision for our city's future. In July 2017, the City of Boston completed its first comprehensive citywide plan in more than fifty years. Our plan, known as Imagine Boston 2030, is guiding our growth. As we guide our growth and Amazon continues to expand its presence in Boston, we are ready to welcome Amazon's second North American headquarters to Boston.

From 2010 to 2016, Boston's population grew by 9%, which is an unprecedented rate of growth for the city and a faster rate of growth than other comparable cities in the Northeast.<sup>1</sup> By 2030, Boston is projected to be home to approximately 724,000 residents and is on track to reach—and likely exceed—its previous peak population of 801,000 by 2050.<sup>2</sup>

The City of Boston is part of the New England City and Town Area (NECTA), which is the New England equivalent of a Metropolitan Statistical Area (MSA). The Boston MSA is part of the Boston-Cambridge-Nashua NECTA, comprised of cities and towns across the region; the region can also be defined at the county level as the counties of Suffolk, Norfolk, Middlesex, Essex, and Plymouth.

Today, the Boston MSA (Boston) has a population of 4.9 million residents, up from 4.7 million in 2010.<sup>3</sup> The 2016 GDP for the metro area was \$423 billion. The metro GDP has grown at an annual rate of 2.2% since 2010.<sup>4</sup>



## Question No. 1

*Please provide information regarding potential buildings/sites that meet the criteria described herein. Along with general site information, please provide the current ownership structure of the property, whether the state/province, or local governments control the property, the current zoning of the site, and the utility infrastructure present at the site.*



## Suffolk Downs

Please review Chapter 3: Boston, Your Home for comprehensive proposed details about site options.

### **East Boston/Revere**

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Suffolk Downs	525 McClellan Highway, Boston, MA 02128	8 million	The HYM Investment Group, LLC	See Chapter 3	See Chapter 3



Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
2 Miles	5	5			•	•	•	•	•

## Additional Site Cluster #1

### South Boston Waterfront and Downtown Boston

The South Boston Waterfront, in combination with the traditional core Downtown business district, has emerged as a dynamic and mixed-use destination for a wide range of innovation and technology companies.

#### South Boston Waterfront

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Parcels L4, L5, D & P	1 Seaport Boulevard, South Boston Waterfront, MA 02210	2,800,000	WS Development	Under Review	in Seaport Square
Parcel Q1	10 Drydock Avenue, South Boston Waterfront, MA 02210	212,000	"SCD Northeast Acquisitions, LLC (Skanska)"	Approved	in Raymond L. Flynn Marine Park
Parcel E	Bond Drive, South Boston Waterfront, MA 02210	300,000	The Fallon Company	PDA Approved	at Fan Pier. PDA Development Plan allows 236 feet (height)
Parcel H	591 Congress Street, South Boston Waterfront, MA 02210	500,000	MassPort		Commonwealth Flats
Parcel A-2	World Trade Center Avenue, South Boston Waterfront, MA 02210	500,000	MassPort		Commonwealth Flats
Parcel D-3	Summer Street, South Boston Waterfront, MA 02210	500,000	MassPort		Commonwealth Flats
Innovation Square	6 Tide Street, South Boston Waterfront, MA 02210	360,000	Kavanagh Advisory Group, LLC	Approved	in Raymond L. Flynn Marine Park
100 Acres: Parcels G4 - G8, U1 - U7	A Street and Fort Point Avenue, South Boston Waterfront, MA 02210	up to 4,200,000	G4 - G8: Proctor & Gamble U1 - U7: USPS	PDA Approved	G4 - G8: 1.3 mil. sf. available U1 - U7: 2.9 mil. sf. available
Boston Convention and Exhibition Center	Summer Street, South Boston Waterfront, MA 02210	32 acres	Mass Convention Center Authority		

#### Downtown

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Winthrop Square	115 Federal Street, Downtown Boston, MA 02210	635,000	Millennium Partners	Under Review	
Government Center Garage / Bulfinch Crossing	50 Sudbury Street, Downtown Boston, MA 02114	1,300,000	HYM Investment Group, LLC	Approved	
Hub On Causeway	80 Causeway Street, West End, MA 02114	500,000	Boston Properties	Under Construction	at North Station
South Station Air Rights	700 Atlantic Avenue, Downtown Boston, MA 02210	1,200,000	Hines Interests Limited Partnership	Approved	Includes three phases

Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
3	8	15				●	●	●	
3	10	18	●	●		●	●		
3	13	20	●				●		
3	10	11		●			●		
3	10	11		●			●		
3	8	18	●	●			●		
3	10	20					●		
3	10	11		●		●	●	●	

Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
3	10	20			●	●	●	●	
2	10	13	●		●	●	●		●
3	9	30	●		●	●	●	●	●
4	10	17		●	●	●	●	●	

## Additional Site Cluster #1 South Boston Waterfront and Downtown Boston





## Additional Site Cluster #2

### South End, Back Bay, Roxbury, and Widett Circle

The Harrison/Albany corridor, bounded by the South End, Back Bay, Roxbury and Widette Circle, is evolving to embrace a mix of industrial and knowledge based land-uses while offering access to some of Boston's most dynamic and historic residential neighborhoods.

#### Harrison/Albany Corridor

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Exchange South End	540 Albany Street, South End, MA 02118	1,480,000	The Abbey Group	Under Review	former Boston Flower Exchange
EB80	80 East Berkeley Street, South End, MA 02118	1,050,00	The Druker Company, LTD.	Approved	"320,000 sf. permitted 730,000 sf. in Phase II"
321 Harrison Avenue	321 Harrison Avenue, South End, MA 02118	216,000	1000 W. Acquisitions, LLC	Under Construction	
BioSquare II-Parcel G	640 Albany Street, South End, MA 02118	215,000	University Associates LP	Approved	Boston University
South Gate	185 Kneeland Street, South End, MA 02118	up to 7.5 acres	Mass D.O.T.		
Harrison Albany Block	660 Harrison Avenue, South End, MA 02118	80,000	Leggat McCall Properties	Approved	

#### Back Bay

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
350 Boylston Street	330-360 Boylston Street, Back Bay, MA 02116	220,000	The Druker Company, LTD.	Approved	
Back Bay/South End Gateway	145-165 Dartmouth Street, Back Bay, MA 02116	592,000	Boston Properties	Under Review	at Back Bay Station

#### Dudley Square

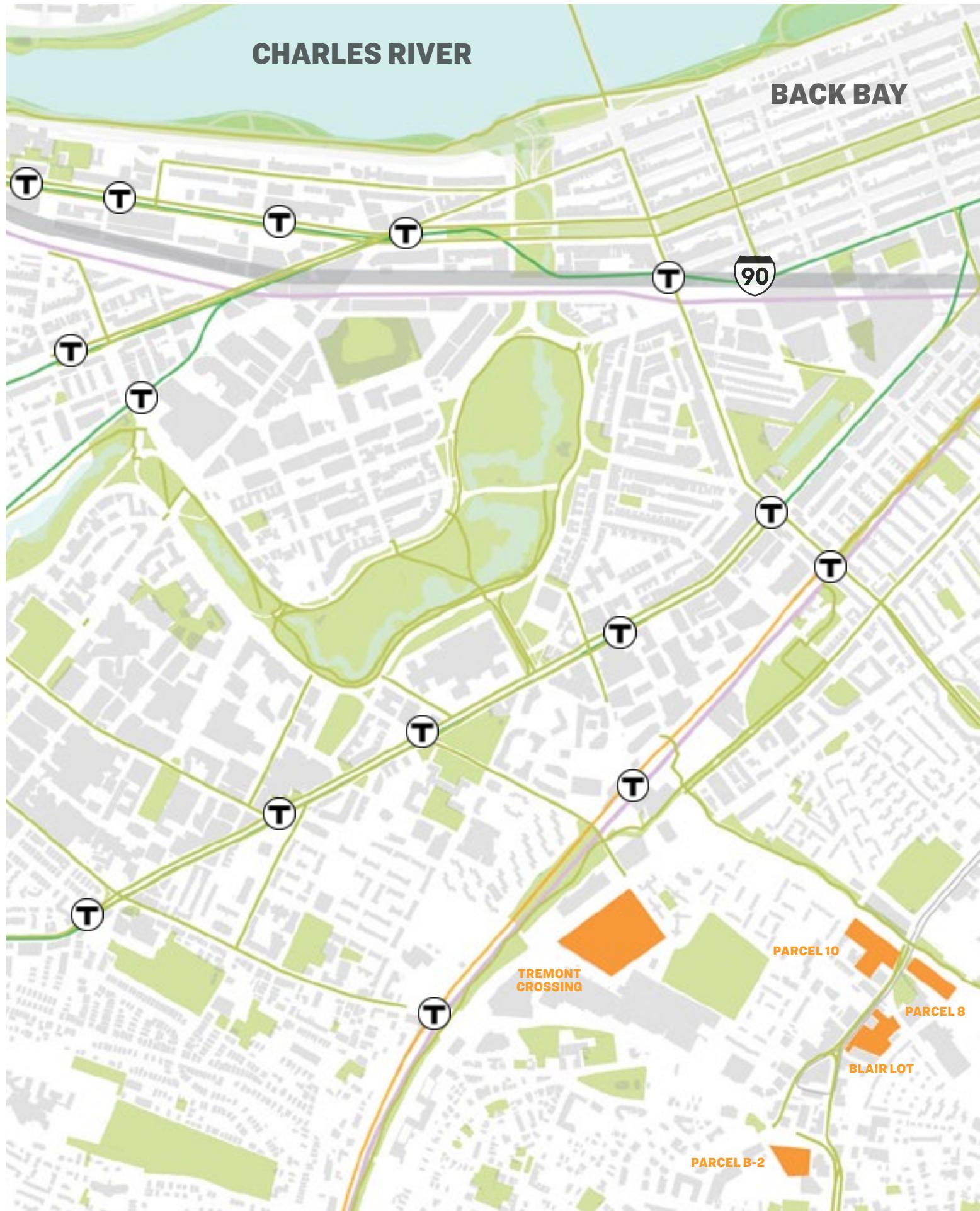
Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
B-2 (Dudley Street Commercial)	Dudley Street, Roxbury, MA 02119	250,000	City of Boston		
Blair Lot	Washington Street, Roxbury, MA 02119	500,000	BPDA		
Tremont Crossing	Tremont Street, Roxbury, MA 02119	108,000	P-3 Partners, LLC	Approved	Parcel 3. PDA Development Plan allows up to 120,000 sf. of office
P-8	Melnea Cass Boulevard, Roxbury, MA 02119		State of Massachusetts/DCAMM		
P-10	2085 Washington Street, Roxbury, MA 02119	59,000	Madison Park Development Corp	Approved	Phase III will be office/commercial

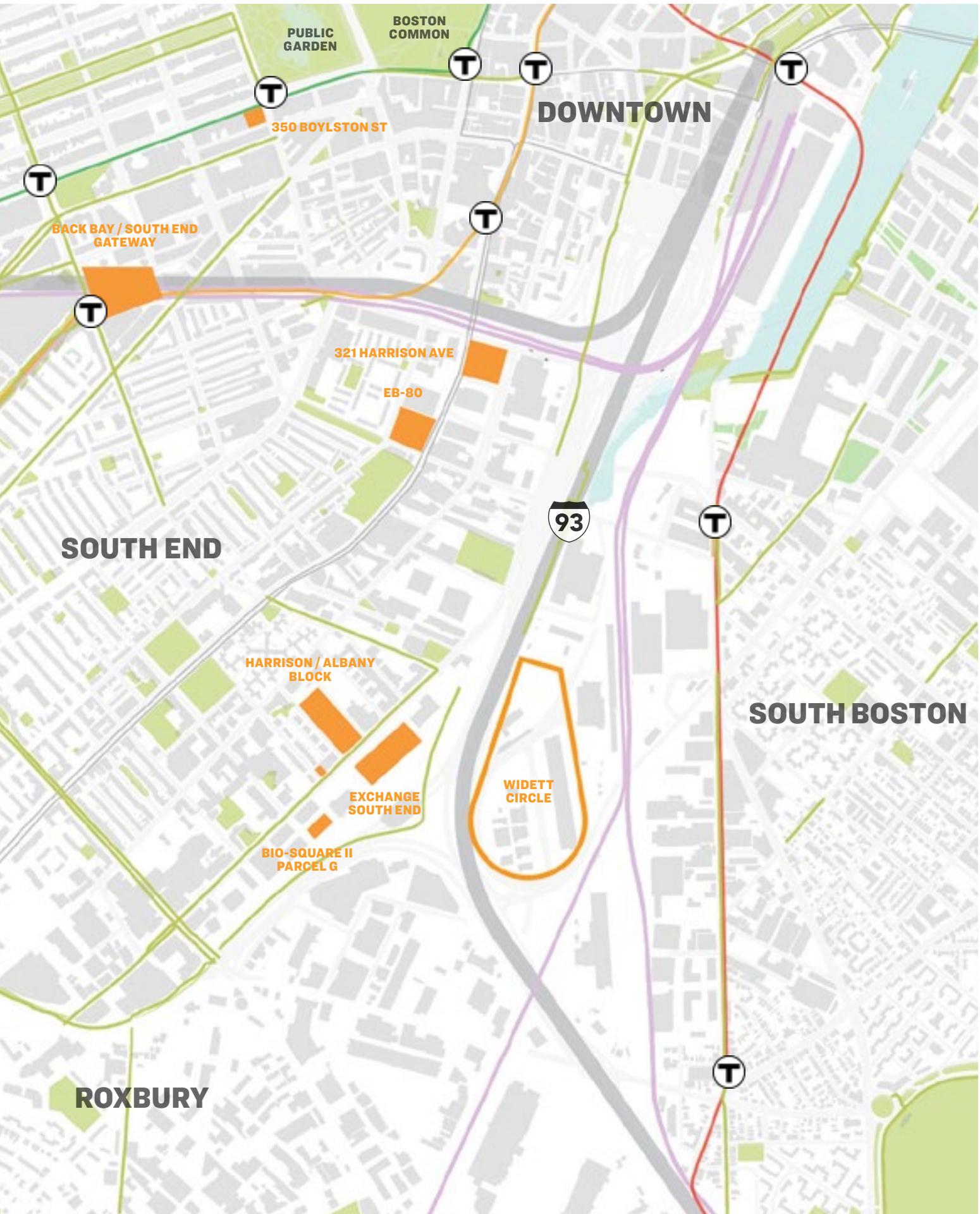
#### Widett Circle

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Widett Circle	Foodmart Road, Roxbury, MA 02118	up to 30 acres	New Boston Food Market		

Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
4	8	37				●	●		
5	11	23	●			●	●		
4	9	22	●				●		
4	8	37	●				●		
3	9	14		●			●		
4	8	27	●		●	●	●		
Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
4	16	23	●			●	●		
4	13	19		●	●	●	●		
Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
6	14	32		●			●		
6	14	32		●			●		
5	14	32	●		●	●	●		
5	22	33		●			●		
5	22	33	●		●	●	●		
Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
5	10	30					●		

## Additional Site Cluster #2 South End, Back Bay, Roxbury, and Widett Circle





## Additional Site Cluster #3

### Allston / Brighton to South Station

By utilizing the emerging and established business clusters along the MBTA Commuter Rail, the Allston/Brighton to South Station corridor is poised for significant growth and evolution.

#### Allston/Brighton

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Boston Landing	38-180 Guest Street, Brighton, MA 02135	320,000	NB Guest Street Associates, LLC	Under Construction	
Harvard ERC	Western Avenue, Brighton, MA 02135	500,000	Harvard University		Planned MBTA Station
Allston Yards	60-94 Everett Street, Brighton, MA 02135	300,000	WJG Realty Trust	Letter of Intent	Stop & Shop Redevelopment Project

#### Fenway

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Landmark Center	201 Brookline Avenue, Fenway, MA 02215	1,200,000	Samuels & Associates	Under Review / Under Construction	1.2 million sf of office includes 500,000 currently under review
Fenway Center	Brookline Avenue, Fenway, MA 02215	150,000	Meredith Management Corp./ Gerding Edlen	Approved	Office space is in Phase 2

#### Back Bay

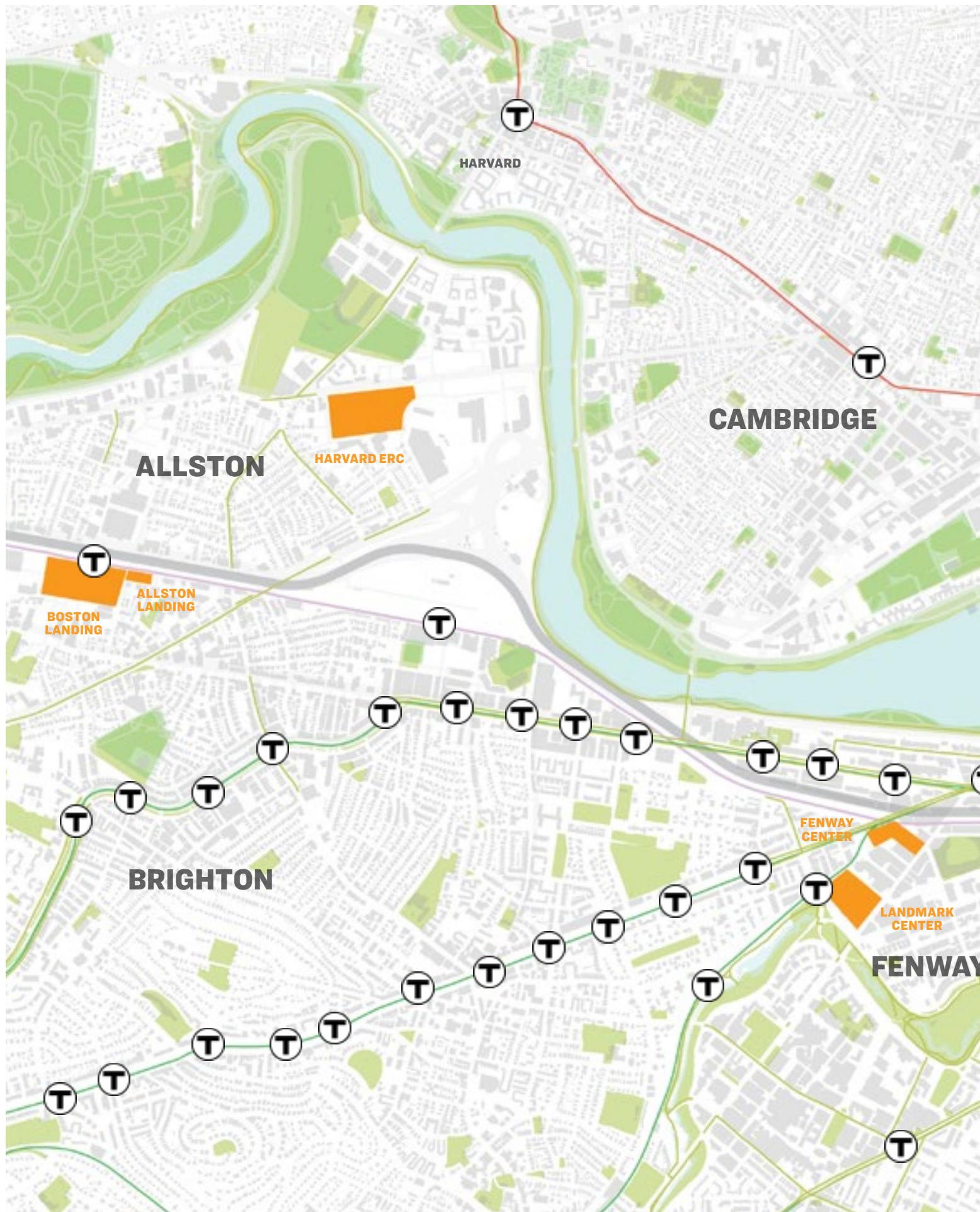
Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
Back Bay/South End Gateway Project	145-165 Dartmouth Street, Back Bay, MA 02116	592,000	Boston Properties	Under Review	at Back Bay Station

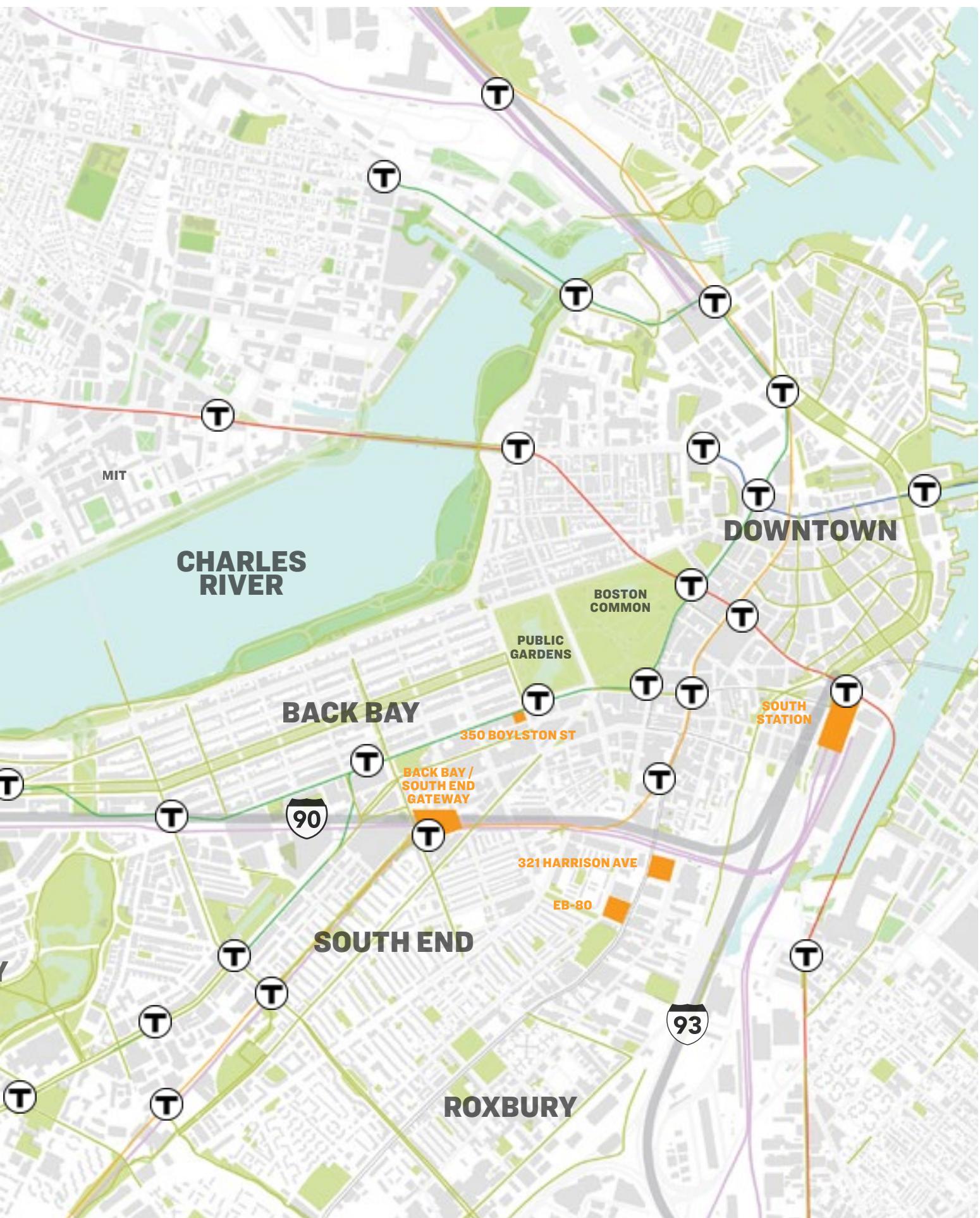
#### Downtown

Parcel Name	Address	Office Space (in sf.)	Owner/Property Manager	BPDA Status	Notes
South Station Air Rights	700 Atlantic Avenue, Downtown Boston, MA 02210	1,200,000	Approved		Hines Interests Limited Partnership Includes three phases

Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
8	22	33	●		●	●	●		
8	12	28							
8	22	33			●	●	●		
Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
6	14	28	●			●	●	●	
5	13	30	●		●	●	●	●	
Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
4	13	20		●	●	●	●		
Proximity to Logan (miles)	Proximity to Logan (minutes by car)	Proximity to Logan (minutes by transit)	Permitted	Publicly Owned	Housing	Retail	Office	Dining	Hotel
3	9	15	●		●	●	●	●	

## Additional Site Cluster #3 Allston / Brighton to South Station





## Question No. 2

*Please provide a summary of total incentives offered for the Project by the state/province and local community. In this summary, please provide a brief description of the incentive item, the timing of incentive payment/realization, and a calculation of the incentive amount. Please describe any specific or unique eligibility requirements mandated by each incentive item. With respect to tax credits, please indicate whether credits are refundable, transferable, or may be carried forward for a specific period of time. If the incentive includes free or reduced land costs, include the mechanism and approvals that will be required. Please also include all timelines associated with the approvals of each incentive. We acknowledge a Project of this magnitude may require special incentive legislation in order for the state/province to achieve a competitive incentive proposal. As such, please indicate if any incentives or programs will require legislation or other approval methods. Ideally, your submittal includes a total value of incentives, including the specified benefit time period.*

For comprehensive proposed details about investments, incentives, and initiatives, please review Chapter 4: Boston, Your Community Partner.

## Question No. 3

*If any of the programs or incentives described in the summary of total incentives are uncertain or not guaranteed, please explain the factors that contribute to such uncertainty and estimate the appropriate level of certainty. Please also describe any applicable claw backs or recapture provisions required for each incentive item.*

The City of Boston looks forward to further discussing investments, incentives, and initiatives with Amazon. In Boston and Massachusetts, public infrastructure investments and incentives are generally tied to significant private investment and job creation. Clawbacks and recapture provisions may apply.

## Question No. 4

*Please provide a timetable for incentive approvals at the state/province and local levels, including any legislative approvals that may be required.*

The City of Boston looks forward to future discussions to learn more about Phase 1 and future phases for Amazon's second headquarters to better understand your business growth plans, timeline, and the opportunity to forge a long-term partnership with the Boston community.

## Question 5

*Please provide labor and wage rate information in the general job categories described. Please provide relevant labor pool information and your ability to attract talent regionally. Also, include specific opportunities to hire software development engineers and recurring sourcing opportunities for this type of employment. Please include all levels of talent available in the MSA, including executive talent and the ability to recruit talent to the area.*

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### **5.1 Labor and Wage rate information in the general job categories and all levels of talent in the MSA**

The Boston MSA boasts a highly-experienced workforce which is trained in management, financial, legal, and administrative occupations. This workforce has the skills Amazon needs as it continues to grow its existing presence in Boston. In the Boston MSA region, over 221,000 workers are employed in management positions with a median annual wage of \$121,740. Collectively, the Boston MSA can support a robust pool from which to recruit executive level talent. There are currently 13,130 top executives employed within Boston and 65,770 top executives employed regionally throughout the Boston MSA. Of note, the region is also home to (1) 169,270 Business and Finance Operations jobs with a median annual salary of \$76,900; (2) 25,910 Legal jobs with a median annual salary of \$106,900; (3) 385,060 Office and Administrative Support jobs with a median annual salary of \$43,310.<sup>5</sup> (See Table 1 for further reference.)

With 130,660 workers in computer and mathematical occupations, the Boston MSA has the 7th highest number of workers employed in computer and mathematical occupations amongst 34 comparable metropolitan areas. Of these workers, approximately 60,000 work as Software Developers (including Software Developers, Applications; Software Developers, Systems Software; and Web Developers).<sup>6</sup> The median annual wage of developers of systems software is \$114,260. (See Table 2 for more details.)

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### **5.2 Relevant labor pool information and the ability to attract talent regionally**

Boston is the epicenter of world-class institutions of higher education. The Boston region is home to 75 institutions of higher learning which collectively have an enrollment of approximately 300,000 students.<sup>7</sup> Of the colleges and universities in the Boston MSA, 31 are located in the city of Boston with a combined enrollment of more than 138,000 students in undergraduate and graduate programs.<sup>8</sup>

Students come from all over the country and the world to study in Boston. 37% of domestic migrants and 43% of international migrants come to Boston each year to attend college or university.<sup>9</sup> Nearly 48,000 international students attend Boston's higher education institutions.<sup>10</sup> Moreover, 22% of the undergraduate and graduate students living in Boston are foreign born.<sup>11</sup> Boston employers are able to attract, utilize and champion students and graduates of our world class educational institutions which facilitate our robust pipeline of highly skilled talent and bolster the regional workforce. More than 52 % of Boston region's labor force hold a Bachelor's degree or higher.<sup>12</sup> Specifically, Boston and the surrounding counties are home to a large and growing pool of workers with degrees in STEM fields and business. In 2016, there were 84,000 residents in the Boston MSA region with Bachelor's degrees in Computers, Mathematics, and Statistics; the number of residents has risen by 25% since 2010.<sup>13</sup>

The number of educated workers in Boston is replenished each year by graduates of Boston area colleges and universities. In addition, the region's labor market includes people who moved to Boston each year for work (59% percent of whom have a Bachelor's degree or higher).<sup>14</sup>

## Table 1: Management, Finance, Law, & Administration Employment in Boston Metropolitan Area

Management, Financial, Legal, and Administrative Occupations	Employees Working in Boston	Median Annual Wage	Employees Working in Boston/Cambridge/Nashua region (NECTA)	Median Annual Wage
Management	55,290	\$125,357	221,280	\$121,740
Top Executives	13,130	N/A	65,790	N/A
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	7,490	N/A	28,390	N/A
Operations Specialties Managers	18,320	N/A	65,350	N/A
Other Management Occupations	16,350	N/A	61,750	N/A
Business and Financial Operations	59,350	\$78,288	169,270	\$76,900
Legal Occupations	11,880	\$128,523	25,910	\$106,900
Office and Administrative Support Occupations	79,610	\$46,118	385,060	\$43,310

Source: Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis.

## Table 2: Employment in Computer and Mathematical Occupations in Boston Metropolitan Region

Computer and Mathematical Occupations	Employees Working in Boston	Median Annual Wage	Employees Working in Boston/Cambridge/Nashua region (NECTA)	Median Annual Wage
Mathematical Science	3,110	N/A	7,800	N/A
Computer and Information Research Scientists	80	\$97,576	1,240	\$119,220
Computer Systems Analysts	3,440	\$91,173	12,650	\$89,400
Information Security Analysts	640	\$103,836	3,160	\$94,400
Computer Programmers	1,150	\$91,539	6,810	\$95,860
Software Developers, Applications	6,250	\$107,175	30,760	\$107,030
Software Developers, Systems Software	2,860	\$110,462	26,880	\$114,260
Web Developers	1,110	\$77,990	3,570	\$79,480
Database Administrators	810	\$83,778	2,520	\$87,870
Network and Computer Systems Administrators	2,580	\$92,222	9,050	\$90,580
Computer Network Architects	1,060	\$113,719	4,010	\$119,290
Computer User Support Specialists	2,900	\$60,306	17,030	\$61,470
Computer Network Support Specialists	480	\$76,013	2,300	\$78,930
Computer Occupations, All Other	1,240	\$93,881	5,880	\$92,820
<b>Total Computer and Mathematical Occupations</b>	<b>27,710</b>	<b>\$91,936</b>	<b>133,660</b>	<b>\$94,510</b>

Source: Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis.

As New England's largest employment center with almost 757,000 jobs, Boston draws talent both from its own residents and from over 100 neighboring communities.

Approximately 27% of the payroll jobs in Boston are held by Boston residents with a significant percentage of workers from neighboring cities and towns including Revere, Quincy, Chelsea, Cambridge, and Brookline.<sup>15</sup>

Boston's workforce is as diverse as it is talented: the workforce has a strong regional, national, and international recruiting network. The foreign born population accounts for (1) 30% of Boston's resident labor force; (2) 29.5% of the people working in Boston;<sup>16</sup> and (3) 29% of Boston's population.<sup>17</sup> The foreign born population represents over 100 different countries and speaks over 60 different languages.<sup>18</sup> Boston's business community is strengthened by the diverse skills, connections, and perspectives of this population.

Access to talent and diversity is a decision driver for global companies choosing to grow their business in Boston. Indeed, many companies have relocated to or expanded in Boston such as Reebok, Asics, Converse, New Balance, RedHat, LogMeIn, GE, PTC, DraftKings, Toast, Catalant, MassRobotics, Cybereason, Vertex, Alexion, and Gingko Bioworks.

### **5.3 Specific opportunities to hire software development engineers and recurring sourcing opportunities**

As previously mentioned, the Boston MSA currently has approximately 60,000 people working as software engineers. In addition, more than 3,000 students receive undergraduate and graduate degrees in computer science from Boston area universities each year. Boston has a strong network of public and private partners committed to growing Boston's talent pipeline.

Imagine Boston 2030 (IB2030), Boston's first comprehensive plan in 50 years, advocates for an inclusive city that supports growth, opportunity, and affordability throughout the city. As part of the IB2030 plan, Boston is currently working with Skillworks on an initiative to align Boston area employers with job seekers from diverse and technical backgrounds. Skillworks is leading the effort, called the Tech Talent Exchange (TTX), in collaboration with the City of Boston, Boston Private Industry Council, and the BiCoastal Workforce Alliance (BiCWA).<sup>19</sup>

The TTX is in "concept" stage, and the collaborating parties are seeking funding to begin the pilot.<sup>20</sup> In "pilot" form, TTX will create both a physical and virtual hub. The hubs will empower employers, job seekers, and training providers to efficiently connect with qualified candidates and sources of employment respectively through one centralized channel. Services that TTX will provide include: mobile career centers, knowledgeable career coaches,

direct access to jobs and recruiters, assessment and personalized career roadmaps, networking events and technology, and access to training providers.

Specifically, TTX will (1) enable job seekers to assess their competitiveness for jobs in the local labor market and direct job seekers to the best fit roles; which is a resource that is currently lacking in labor markets today; (2) direct job seekers to the most appropriate job training resources that best address their skill gaps; (3) enable students to showcase the right skills to recruiters; and, therefore, (4) enable employers to find and recruit the right talent.

As part of the long-term plan for TTX, this initiative will provide:

1. Personalized Job Recruitment Experience on Amazon's Campus: TTX will be designed to create a personalized, scalable, customer-first experience for job seekers and workforce trainers, not only in a virtual hub, but also in a physical space.
2. Streamlined Talent Search: Designed to support the hiring needs of all tech companies in Boston, TTX can serve as a streamlined resource for Amazon to recruit software engineers as well as provide a diversity of jobs to Amazon as it expands in Boston.
3. Preparing Untapped Talent: Serving as a complementary tool to existing resources, TTX will especially focus on critical services that are absent or underdeveloped within traditional systems. TTX will expand the supply of tech workers in the Boston area by providing job seekers disconnected from the IT industry with skills and industry connections. TTX will be a strong asset for enhancing Boston's existing labor force to serve as an effective pool for Amazon's ongoing recruitment of competitive talent.
4. Connecting to the Talent Pipeline: Building on Amazon's anticipated participation in career pathway opportunities among Boston Public School graduates, including students enrolled in the city's Tuition-Free Community College Program and the Massachusetts Bridge Program (see Pathways to College below), TTX will serve as an ongoing workforce development for Amazon interns with the goal of future job placement at Amazon.

In addition to TTX, there are a significant number of businesses and organizations that invest in Boston schools, coding and tech programming, youth employment, career coaching, and development. Below are a few examples of programs that contribute to advancing Boston's tech talent pipeline for today and for the future:

### **TechHire Boston**

In 2016, SkillWorks and the Boston Private Industry Council (PIC), in partnership with the City of Boston, launched TechHire Boston, a program that connects residents and students to burgeoning IT jobs. In 2017, the City of Boston announced that over \$1 million will be invested in developing Boston's tech talent pipeline. This announcement followed by an investment from The Boston Foundation of \$10 million which will be used for training and support in several high-growth tech industries.

### **TechGen**

TechGen, managed by the New England Venture Capital Association (NEVCA), supports the Intern Partnership, a state program that funds internships at innovation start-ups. This platform empowers students and employers to create "profiles" and match with one another.

### **Hack.Diversity**

Hack.Diversity launched as a pilot in late 2016 with plans to scale up, provides internships, mentoring, and job placement opportunities for students of color from Bunker Hill Community College, UMass Boston, Year Up, Resilient Coders, and Worcester Polytechnic Institute. In its first year, Carbonite, Data Xu, Hubspot, Vertex, and Wayfair participated.

### **Tech Apprentice Program**

The Tech Apprentice Program is a seven-week internship experience at local companies for technology-skilled high school juniors and seniors from the City of Boston. The program is part of the Mayor's Summer Jobs Program and is managed by the Boston Private Industry Council (PIC) with the support from the Boston Public Schools.

### **STEM Starter Academy**

The STEM Starter Academy (SSA) strengthens and expands STEM programming in Massachusetts' 15 community colleges. The program enhances academic retention and connects students with internship and employment opportunities. The program assists students in matriculating to and graduating from four-year colleges and subsequently securing employment. Companies like Genzyme and Microsoft have partnered with SSA. Notably, the Massachusetts Legislature invested more than \$20 million in SSA since FY14.

### **MassCAN**

MassCAN is a state-led program that is dedicated to developing K-12 students so that they are capable of innovating in a digital world. In 2014, Massachusetts became the first state in the nation to offer a dollar-for-dollar matching program with private industry for K-12 computer science education (CSE). Through a partnership with MassCAN, the Commonwealth is establishing widespread, progressive CSE curriculum in public schools. MassCAN has achieved both national and

international success. Specifically, in 2015 two MassCAN teams placed second and third at Technovation, a global technology competition for female students. MassCAN educators have been recognized at the White House on numerous occasions and have been awarded National Science Foundation grants. Code.org notes that because programming jobs are growing at two times the national average, and because computer science degrees garner high salaries, America will be leaving a \$500 billion opportunity untapped by 2020. By choosing to directly fund computer science while leveraging the strengths of the state's innovation ecosystem, MassCAN believes Massachusetts is setting a national model for both education and economic development. Massachusetts has provided \$2.6 million to MassCAN since FY15.

### **The Intern Partnership**

The Intern Partnership, an initiative pioneered by the House of Representatives for the Commonwealth of Massachusetts, supports both students and early-stage companies by matching stipends for interns at innovative companies. The first class of students participated in the summer of 2013. Since 2013, more than 300 students have worked for 173 start-ups across the Commonwealth, and subsequently, participating companies have hired about 100 of their respective interns for full and part-time roles. Due to the program's success, the Commonwealth of Massachusetts has provided \$3.7 million since FY13 and has invested an additional \$1.55 million in FY18.

In addition to programming like the examples mentioned above, the City of Boston's Tuition-Free Community College Program is an initiative that provides BPS graduates with a pathway to college. Tuition-free assistance for community college is offered to income-eligible BPS graduates. As a bridge to a four year degree program or career, the city's Tuition-Free Community College Program was launched in 2016 and currently partners with three area community colleges including Bunker Hill Community College, Roxbury Community College, and Mass Bay Community College. The program also partners with the Commonwealth of Massachusetts to provide discounted rates at qualifying four year public institutions across the state.

## Question 6

*Please include programs/partnerships currently available and potential creative programs with higher education institutions in the region in your response. Please also include a list of universities and community colleges with relevant degrees and the number of students graduating with those degrees over the last three years. Additionally, include information on your local/regional K-12 education programs related to computer science.*

### **6.1 Programs/partnerships currently available and potential creative programs with higher education institutions in the region**

The Boston region is home to over 75 institutions of higher learning, 31 of which are located in the city of Boston.<sup>21</sup> As of academic year 2016–17, there were more than 138,000 students enrolled in undergraduate and graduate programs within Boston. Boston's world class educational institutions attract the best talent from around the world; there were over 48,000 international students in the Boston region in 2015.<sup>22</sup> Thirty percent of Boston's international students come from China, with the next largest groups deriving from India, South Korea, Canada, and Saudi Arabia. Our institutions are preparing the next generation of innovative tech and business employees through first class educational degrees, programs, and partnerships.

#### **Berklee College of Music**

Berklee College of Music has a diverse student body representing 96 countries. Their alumni have collectively won more than 250 Grammys and Latin Grammys making Boston's Berklee College of Music the world's premier learning lab for the music of today and tomorrow.

#### *Programs and Partnerships*

- Open Music Initiative: Berklee launched Open Music Initiative in 2016 with the MIT Media Lab, design firm IDEO and Harvard Berkman Center. The Initiative utilizes blockchain technology to dramatically simplify the way that music rights holders and creators are identified and compensated. 200 media industry entities have joined including Sony Music, Universal Music, Warner Music, Spotify, Alibaba Entertainment, Netflix, Intel, SiriusXM, and many others.

- Joint degree programs: Berklee has a joint degree program with Harvard; a joint high school program with Brown University; and a joint VR/AR class with MIT. All of these initiatives foster talent that is uniquely positioned to think both creatively, analytically and intuitively.

#### *Potential Creative Programs and Partnerships*

- Berklee Online: An early online education pioneer and the world's largest online music school, Berklee Online can be an attractive content creation partner for Amazon Prime. It offers over 180 courses, 30 MOOCs and has a current paid-course enrollment of over 17,000.
- New Consumer Experiences: New specializations in sound/audio for game design, and a new push into VR/AR sound, and AI & audio will give Amazon access to cutting-edge talent in an area that is critical to new consumer experiences.
- Access to talent: 900 music, dance and theater faculty can be accessible to Amazonians, bolstering creative thinking, improvisational and empathetic skills—this is critical in Amazon's future ambitions and highly creative approach to technology. In addition, majors in Music Production & Engineering, Sound Design, Film Scoring, Contemporary Music Writing, Music Therapy, and Music Business provide access to talent for many of Amazon's initiatives into music, TV, and film content development.
- Institute for Creative Entrepreneurship: Berklee's multidisciplinary Institutes, such as Institute for Creative Entrepreneurship and the about-to-be launched Music, Mind & Health, have the potential to generate future employees who are multifaceted, creative problem solvers and versed in diverse environments.

### **Benjamin Franklin Institute of Technology**

A technical school with STEM degree programs designed specifically to meet the demands of the job market, the Benjamin Franklin Institute of Technology (BFIT) works closely with leading companies to create pipelines for training, jobs, and internships leading up to and upon graduation. BFIT graduates over 200 Boston area youth a year, 70% of whom are minority students, and the Institute is additionally guided by an industrial advisory board that responds rapidly to industry growth. Graduates are trained in a variety of high-growth technical fields, including computer technology, electrical engineering, health information technology, robotics and mechanical engineering technology. 93% placement into jobs or advanced higher learning.<sup>23</sup>

#### *Potential Creative Program and Partnership*

- Amazon Robotics: BFIT's Robotics and Automation curriculum has been designed in consultation with Amazon Robotics, resulting in new hires at Amazon.

### **Bentley University**

Bentley, located in Boston's western suburbs, has been praised for having the 10th and 12th best undergraduate business program by Bloomberg BusinessWeek and Money Magazine, respectively. It is ranked 2nd in the country for undergraduate and 4th for graduate salary earnings by Payscale. The Princeton Review calls Bentley's internship opportunities the top in the country. Moreover, the school's career services are rated #2 in the country.<sup>24</sup> Bentley has USA Today's top ranking accounting program in the nation<sup>25</sup> and its graduates in business management have gone on to work for top employers including T.J.X., Morgan Stanley, and Liberty Mutual.<sup>26</sup>

#### *Programs and Partnerships*

- The Center for Marketing Technology enables business students to provide tactical marketing research for clients such as Coca-Cola, Ford, Apple, and eBay. Bentley offers an Information and Process Management major, a Computer Information Systems (CIS) major, the CIS Sandbox Center and Information Design and Corporate Communication program which combines business skills with web design and user experience design.

### **Boston University**

A world-class higher education research institution located in the heart of Boston, Boston University (BU) has multiple research areas, which were awarded \$400.7 million in research grants in FY2017. The research areas encompass subject matter from the humanities to business to biomedicine. In 2016, Boston University ranked number 11 on the Times Higher Education's Global University Employability rankings.

BU's College of Engineering alone had \$98.6 million in research expenditures (ranked 10th nationally in expenditure per faculty member) and is ranked 35th in the nation by US News and World Report.<sup>27</sup> The College of Engineering offers 13 different programs, including electrical and computer engineering,<sup>28</sup> and systems engineering.<sup>29</sup> Over 200 companies are currently developing and selling products based on BU discoveries.

The Questrom School of Business is ranked 12th in the nation by USA Today. Specifically, Questrom is ranked 13th for its MS in Mathematical Finance, and 37th for its MBA program.<sup>30</sup> In 2015, Boston University's Executive MBA program (EMBA) was ranked 1st in New England and 49th in the world by The Economist. BU also offers computer science and graphic design programs, along with a Law School that The Princeton Review regards as 1st in the nation for best professors.<sup>31</sup>

#### *Programs and Partnerships*

Questrom's Master of Science in Management Studies: This program is a nine-month, free-form initiative that challenges students who do not have a background in business to tackle real-time issues. There are no exams or grades in the program; rather students are expected to partake in skill-oriented learning with companies such as AT&T, Quintiles and Paint Bar. The program won "Most Innovative Business School Idea of 2015"<sup>32</sup> due to the way in which it closed the gap between the skills learned in academia and the skills required to succeed in industry.

- Rafik B. Hariri Institute for Computing and Computational Science & Engineering: This institute is a data science incubator. Its mission is to initiate, catalyze, and propel transformative computational and data-driven research and training programs across multiple academic disciplines.
- Rajen Kilachand Center for Integrated Life Sciences & Engineering: Launched in early September 2017, this new center brings together life scientists, engineers, and physicians in order to spread life-changing developments in the fields of human health, environment, and energy. The Center also houses the Center for Systems Neuroscience, Cognitive Neuroimaging Center, and the Biological Design Center.
- (K-12) Boston Scholars Program: The Boston Scholars Program is Boston University's signature community benefit program for graduates of Boston Public Schools, and includes two types of scholarship awards: the Menino Scholars, formerly known as the Boston Scholars, and the Community Service Award. Each year, Boston University awards 25 four-year, full-tuition scholarships to Boston Public high school seniors. Through the Community Service Award, Boston University is committed to meet, without loans, the full calculated financial aid eligibility

of any admitted Boston Public high school graduate, including incoming transfer students. Since its inception, the Boston Scholars Program has awarded more than \$163 million in scholarships to approximately 2,200 Boston Public Schools students.

#### Potential Creative Programs

- **Innovate@BU:** Boston University is preparing to launch Innovate@BU, an initiative that will help Boston University's undergraduates both foster creative, problem-solving habits of mind and also develop the skills needed to turn their ideas into tangible ventures via cross-campus collaboration between Boston College, Northeastern, Emerson, MIT, Babson, and Boston University. Showcased in a new public-facing innovation lab, Innovate@BU's BUild Lab will be a professionally-staffed student innovation hub, a gateway for the Boston business community, and a counterpart to Boston University's existing large prototyping and makerspace, the Engineering Product Innovation Center (EPIC).
- **Engineering Product Innovation Center:** EPIC is an engineering work-space for students. The Center boasts cutting-edge technologies such as 3-D printers, project management software, robotics, and other online software. Students have the ability to work with seasoned academics to pursue initiatives, such as advanced manufacturing, IoT, nanotechnology, and machine learning.
- **CARB-X:** Headquartered at Boston University's Law School, the Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator (CARB-X), brings together leaders in industry, philanthropy, government, and academia with the aim of rejuvenating the antimicrobial pipeline for the next 25 years. CARB-X grew out of President Obama's 2015 Combating Antibiotic-Resistant Bacteria (CARB) initiative and addresses several goals laid out in the US Federal CARB National Action Plan. Wellcome Trust, a global charitable foundation headquartered in London, pledged \$155 million over five years to BU for this partnership, bringing its total funding to \$450 million.

#### Bunker Hill Community College

Bunker Hill Community College (BHCC) is the largest community college in Massachusetts with an enrollment of more than 13,000 students on two main campuses and several satellite locations. BHCC is one of the most diverse institutions of higher education in Massachusetts—61% of the students are people of color, and more than half of its students are women. BHCC offers a transfer program in Electrical Engineering and two-year programs in Business Administration and Computer Information Technology.

#### Programs and Partnerships

- **Boston's Tuition-Free Community College Program:** Boston offers tuition-free assistance for community college to income-eligible Boston Public School graduates. As a bridge to a four year degree program or career, Boston's Tuition-Free Community College Program was launched in 2016 and currently partners with three area community colleges including Bunker Hill Community College, Roxbury Community College, and Mass Bay Community College. The program also partners with the Commonwealth of Massachusetts to provide discounted rates at qualifying four year public institutions across the state.

#### Emerson College

With a diverse and talented student body representing 57 countries, Emerson College bolsters Boston's creative energy. The college is recognized internationally as the nation's premier institution of higher learning devoted to communication and the arts.

#### Programs and Partnerships

- **Engagement Lab:** The Engagement Lab, supported by both the John S. and James L. Knight Foundation and the MacArthur Foundation, partners with the City of Boston, the Metropolitan Area Planning Council, the City of Philadelphia, Detroit Works Long Term Planning, Tufts University and the Smithsonian Institute. The Engagement Lab is an applied research lab focused on the development and study of games, technology, and new media.
- **Emerson Experience in Entrepreneurship (E3):** Students in E3 craft business plans, present business pitches, and test products for market sustainability. More than 150 businesses, including Roxy's Grilled Cheese, Evy Tea, and Temple Twist, have been designed through E3; E3 boasts a 30% success rate.

#### Potential Creative Program

- **Business of Creative Enterprises:** This major is the first of its kind in the country and focuses on the interconnection between business strategy, creative thinking, and ideas.

#### Emmanuel College

Located in the Longwood Medical and Academic Area, the heart of Boston's educational, scientific, cultural and medical communities, Emmanuel College focuses on liberal arts and sciences. Due to its location, which provides unique opportunities for collaboration with some of the world's top names in biomedical discovery, Emmanuel possesses particular strength in the sciences, competing with the country's top liberal arts institutions for federal research funds.

### Programs and Partnerships

- Jean Yawkey Center for Community Leadership: The Jean Yawkey Center for Community Leadership is dedicated to developing service opportunities and leadership skills for Emmanuel College students and providing programs for young people in Boston area schools and community organizations.
- (K-12) Center for Science Education: The Center for Science Education serves as a major resource for K-12 teachers in Massachusetts, promoting scientific literacy and providing quality professional development. The Center also hosts events to inspire students, especially those in Boston's urban schools, to pursue careers in science and other STEM fields.
- (K-12) The Carolyn A. Lynch Institute: The Carolyn A. Lynch Institute provides a range of collaborative programs and services that enhance the professional development of urban teachers and enrich the education of Pre K-12 students in the city of Boston and other urban areas. The programming offered through the Lynch Institute has enabled Emmanuel College to positively impact the quality of education in urban schools, with particular emphasis on math, science and technology education.

### Potential Creative Program

- Urban Food Project: The Urban Food Project brings Emmanuel students together with neighbors and local community groups with the aim of enhancing food availability and nutrition, particularly among families who may not qualify for government assistance but are unable to afford the healthy food they need.

### Harvard University

With an enrollment of 22,000 degree candidates including Harvard College and 12 graduate and professional schools, Harvard University is devoted to excellence in teaching, learning, and research, and to developing leaders in many disciplines who make a difference globally. Harvard has more than 360,000 alumni around the world.

The John A. Paulson School of Engineering and Applied Sciences (SEAS), a top-tier engineering school, offers degree programs in electrical engineering, materials science and mechanical engineering, computer science, biomedical engineering, applied mathematics, computational science and engineering, applied physics, design engineering, and environmental science and engineering. SEAS boasts \$38.5 million in research funding and is home to, among others, the Institute for Applied Computational Science, the Center for Research on Computing and Society, and the Center for Integrated Quantum Materials.

During the 2016-2017 academic year, nearly 1,950 students studied at Harvard Business School, which is the #1 business school in the country. Specifically, 936 of these students were enrolled in Harvard's MBA program. In addition to the MBA program, Harvard Business School students can also pursue 8 doctoral programs that lead to a PhD or DBA. Harvard Business School also offers a Business Analytics certificate for graduate students, which is a blended learning approach combining online learning and on-campus immersions for managers who want to understand how data can drive business strategy, and HBX, which is a digital learning platform offering a range of certificate programs in management. In Fiscal Year 2016, Harvard Business School faculty produced 183 research articles, 544 cases/teaching materials, and 13 books. Harvard also offers an executive education program. In 2015, 10,614 managers or executives enrolled in executive education programs in order to acquire additional business skills.

### Programs and Partnerships

- Harvard Robotics: Robotics researchers, brought together by faculty from SEAS, Harvard Law School, the Kennedy School of Government, Harvard Medical School, the Harvard T.H. Chan School of Public Health, Harvard Business School and the Graduate School of Design, are actively pushing the frontiers of knowledge. Specifically, they are conducting research in the topical areas of: controls, sensors, soft materials, computer vision, human machine interfaces, bio-inspired robotics, medical robots for automated and minimally invasive surgical procedures, autonomous search and rescue robots, automated assembly at scales ranging from micrometer to meter, collections of over 1,000 coordinated robots, wearable robotics, and industrial robots for the automation of manufacturing or shipping.<sup>33</sup>
- Center for Integrated Quantum Materials: This center is a partnership between several Harvard schools and other colleges and universities located in the northeast in order to pursue research in the field of new quantum materials with 'non-conventional' properties. The goal of this research is to transform signal processing and computation.<sup>34</sup>
- Center for Nanoscale Systems: This center provides specialized tools, processes, instrumentation, and expertise to help design, simulate, characterize, and fabricate novel materials, nanostructures, devices, and systems at SEAS.
- Privacy Tools Project: Boston has emerged as one of the global centers for cybersecurity research and commercial enterprises. The Privacy Tools Project is advancing new techniques of data privacy and is building computational, statistical, legal and policy tools in collaboration with researchers at Harvard Law School, the Kennedy School of Government and SEAS.<sup>35</sup>

- EconCS Group: The EconCS Group pursues theoretical and experimental research at the intersection of computer science and economics, drawing on methodologies from artificial intelligence, multi-agent systems, computer science theory, microeconomic theory, optimization, and distributed systems. Faculty experts at Harvard Business School are leading research on e-commerce, the future of retail, and technology and operations management.
- (K-12) SEAS Computer Science Programs: Harvard University is an active participant in several programs and initiatives that provide computer science education to metro-Boston elementary and high school students. SEAS operates four programs that provide local students with exposure to computer science concepts and education.
- The Digital Literacy Project: This program provides students at seven partner schools with 10-weeks of computer science education during the school day. The curriculum offers an introduction to coding concepts using the image-based programming language, Scratch. The program then teaches students more advanced coding practice in JavaScript. Harvard students develop course materials, which are carefully designed to be fun and interactive.
- Tech Savvy and SET: SEAS participates in two programs that expose local high school and middle school girls to science and engineering education, including computer science. The Tech Savvy and SET in the City programs bring girls onto Boston-area university campuses to expose them to female engineers and scientists and to participate in hands-on activities.
- Girls Who Code: Girls Who Code is a student organization which provides free Saturday programming open to all students in grades 6-12 at which students from area schools can learn to code, build apps, create games, and become young leaders. Additionally, the young women visit tech companies in order to better understand the industry.
- Harvard Education Portal: The portal is a Harvard-run, community-facing facility that provides academic support and lifelong learning to residents of the Allston neighborhood of Boston. It operates a Computer Animation Club for students in grades 6-8 during the fall and spring semesters. Students who are enrolled in the program can create 2D graphics and animations and simultaneously learn basic computer science and coding principles such as JavaScript.

#### Potential Creative Programs

- The Harvard Data Science Initiative:<sup>36</sup> During the 2017-2018 academic year, Harvard launched a new data science initiative that brought together resources

and expertise from across its 13 academic schools. The initiative involved 55 faculty members and multiple leaders in the field of data science and resulted in several new academic programs, including three master's degree programs and a post-doctoral fellowship program. The master's degree programs<sup>37</sup> will accept students over the next two academic years. The first cohort of postdoctoral fellows will arrive at Harvard during the fall of 2017 to begin the two year program.

- Office of Technology Development: Harvard faculty and researchers provide a steady supply of ideas and discoveries which are available for licensing and commercialization. In Fiscal Year 2016, Harvard's research enterprise reported 509 innovations, submitted 294 new patents applications, potentially adding to the 2,587 pre-existing patents held by the University. Harvard University has 728 active licenses with 390 companies for the use of Harvard discoveries and innovations and has launched more than 100 start-ups.
- The Harvard innovation labs: The Harvard innovation labs provide a vibrant, cross-disciplinary ecosystem in which the Harvard and Boston communities can explore innovation and entrepreneurship. The innovation labs host public events and provide opportunities for innovators and entrepreneurs from across Greater Boston to interact. Since their opening in the Fall of 2011, the innovation labs have been visited more than 325,000 times, have held more than 6,000 events, incubated more than 625 venture teams, connected approximately 160 Experts-in-Residence with Harvard students for mentoring and advising opportunities, and distributed more than \$1.6 million in prize money through the Harvard President's and Dean's Challenge competitions. The Harvard innovation labs include:
  - i-Lab: The Harvard i-Lab offers students the chance to design, prototype, and test their products and move ideas from invention to commercialization. In addition to sponsoring a range of events, challenges and mentoring sessions, the i-Lab runs a "Venture Incubation Program" (VIP) for nascent projects. VIP participants benefit from direct guidance from community partners, faculty, and staff.
  - Pagliuca Life Lab: The Pagliuca Life Lab is a co-working wet space for ventures in biotechnology, life sciences, and medical technology. Members of the lab have access to a full suite of lab benches and equipment.
  - Launch Lab: Harvard's Launch Lab is a space for high-growth, high-potential Harvard Alumni Ventures. Since opening in September 2014, the Launch Lab has been home to 45 ventures.

## MassArt

Massachusetts College of Art and Design is both one of the oldest, publicly funded, free-standing art schools and the first art college to grant a degree of fine arts in the United States.

### Programs and Partnerships

- Center for Community Partnerships: The Center for Art and Community Partnerships cultivates innovative, sustainable relationships with the broader community in Boston for the purpose of exploring and expanding the role of art and design in public life.
- sparc! the ArtMobile: MassArt's sparc! the ArtMobile is a van that travels throughout Boston in order to lead innovative and intergenerational art workshops, programs, and special events designed to stimulate cross-cultural conversations and build community.
- (K-12) Artward Bound: Artward Bound is a free 4-year program offered by MassArt that prepares 9th-12th grade students who are interested in visual arts and design with the artistic and academic skills needed for admission to and success at an art/design college or other post-secondary institution.
- (K-12) Looking to Learn: Committed to excellence in art museum/gallery education, MassArt's "Looking to Learn" program uses contemporary art as a gateway to imagination, creative skill-building, and personal understanding for K-12 students. Through visits with professional educators in the classroom and the galleries, "Looking to Learn" provides students with sessions that incorporate art-making and guided group conversations.

## Massachusetts Institute of Technology

The Massachusetts Institute of Technology is a world-renowned magnet for talent, attracting people from all over the world to its academic programs and research labs. Once they're in Boston, they tend to stay—and act as one of the most important forces in the Boston economy. The engineers, scientists, and technologists who come to MIT collaborate frequently with their counterparts at many of Boston's universities. They go to work in local hospitals, engineering firms, biotech or technology companies, or they create new ventures of their own, in every sector of the marketplace.

### Programs and Partnerships:

- Artificial intelligence and machine learning: At MIT's Computer Science and Artificial Intelligence Laboratory,<sup>38</sup> more than 115 principal investigators have active research projects in dozens of areas<sup>39</sup>—from decentralized information<sup>40</sup> to human-computer interaction<sup>41</sup> to computer vision.<sup>42</sup> At the Institute for Data, Systems, and Society,<sup>43</sup> researchers from all five schools at MIT (from economics and computer science, to math and anthropology) are collaborating on

projects that explore the intersections between data, modeling, and society.<sup>44</sup> At the Operations Research Center,<sup>45</sup> founded in 1953, projects range from finance to education to health care. And while researchers in the Institute for Medical Engineering and Science<sup>46</sup> are discovering new avenues for unleashing the power of computation on health care, their colleagues in the Media Lab are modeling human emotional expressions<sup>47</sup> to understand how they impact health, social interaction, learning, memory, and behavior.

- Robotics: From the Robust Robotics Group<sup>48</sup> and the Robot Locomotion Group<sup>49</sup> in the Computer Science and Artificial Intelligence Laboratory, to the robotic cheetah<sup>50</sup> from the Biomimetic Robotics Lab<sup>51</sup> in the Department of Mechanical Engineering, to the creation of new miniaturized drones<sup>52</sup> from the Department of Aeronautics and Astronautics, to the Media Lab's "personal robots"<sup>53</sup> that are built with the social savvy, physical adeptness, and common sense to partake in daily life—MIT has long held a leadership role in the field of robotics.
- Nanotechnology: More than 20 % of the researchers at MIT are working on methods and tools to synthesize and manipulate matter at the molecular level. The potential for this research to have an impact in such areas as computing and communications,<sup>54</sup> energy,<sup>55</sup> health and health care,<sup>56</sup> manufacturing,<sup>57</sup> materials and structures,<sup>58</sup> prototyping,<sup>59</sup> sustainable futures,<sup>60</sup> and toolmaking<sup>61</sup> is revolutionary. In order to satisfy the rapidly expanding (and highly specific) needs related to research on the nano scale, three years ago, MIT started construction on MIT.nano,<sup>62</sup> a 200,000-square-foot laboratory for nanoscience and nanotechnology in the center of campus. The building is scheduled to open in June 2018.
- Manufacturing: Making things has always been at the core of MIT's culture and mission, and MIT researchers have played a fundamental role in developing many of the technologies driving today's—and tomorrow's—manufacturing industries. From re-inventions of old paradigms and industries like fabrics,<sup>63</sup> concrete,<sup>64</sup> and steel,<sup>65</sup> to novel implementations of 3D-printing for use in the biomedical domain (printing new organs,<sup>66</sup> to novel forms of drug-delivery<sup>67</sup>), architecture and construction,<sup>68</sup> charting new paths for making the technology more environmentally sustainable,<sup>69</sup> or creating robots on demand,<sup>70</sup> MIT researchers remain committed to finding avenues through which their work can be brought to scale in industry.
- Internet of Things: MIT's engineers and scientists are developing the next generation of tools and technologies that will form the connections between people, their devices, and the world they live in. Device research

spans low-power chips that could make speech recognition ubiquitous,<sup>71</sup> to others that can implement neural networks,<sup>72</sup> to ones that harvest the human body's own heat<sup>73</sup> to power themselves. Researchers are also developing security and privacy, from protecting urban infrastructure<sup>74</sup> to mapping the future power grid of Boston.<sup>75</sup>

- Quantum Engineering: MIT physicists and engineers are working to understand, design, manufacture, and control quantum systems comprising superconducting artificial atoms (qubits) for quantum information science and technology applications. A key focus of our effort across campus is advancing quantum computing. Efforts include fundamental research to applied physics and systems engineering<sup>76</sup> and the study of quantum dynamics and control in spin systems,<sup>77</sup> with applications to quantum information and precision measurement.
- Manufacturing USA Institutes: MIT catalyzed statewide collaborations in 10 of the 11 new national institutes that are part of the National Network for Manufacturing Innovation (NNMI). This network focuses on developing and commercializing manufacturing technologies through public-private partnerships between U.S. industry, universities, and federal government agencies. MIT's contributions have included proposals for new technical projects and workforce development programs in manufacturing technologies relevant to production, sensing and automation, physical and cybersecurity, robotic handling, and scaleup technologies. Academic collaborators on these projects include many local universities and community colleges. MIT played a facilitating role in NNMI's American Institute for Manufacturing Integrated Photonics (AIM Photonics), Advanced Robotics for Manufacturing Institute (ARM), the Clean Energy Smart Manufacturing Innovation Institute (CESMII), the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL), and the Advanced Functional Fabrics of America<sup>78</sup> (AFFOA), which is based in Cambridge and last summer<sup>79</sup> opened a new center for development of high-tech fibers and fabrics, as well as two products already ready for commercialization.
- The Engine: Built by MIT—but not just for MIT—The Engine<sup>80</sup> seeks to bridge the gap between discovery and commercialization by empowering disruptive technologies with the long-term capital, knowledge, and specialized equipment and labs they need to thrive. The Engine, which has already attracted \$200 million in investment capital, has a mission to help founders bring their scientific discoveries in tough technologies into the world and commercialize them at scale. They provide funding, facilities, services, and partner

networks to build the next generation of tough tech companies, which have historically been underserved and underfunded, leaving many breakthrough inventions stuck inside the lab. A first-of-its-kind organization, The Engine recently announced<sup>81</sup> investments in its first group of startups.

- High-Performance Computing Center (HPCC): A joint venture between MIT, the University of Massachusetts, Boston University, and Northeastern University, the state of Massachusetts, and a range of industry sponsors, the HPCC is an environmentally-friendly high-performance computing center in western Massachusetts. The center houses a wide range of computing resources, from massive clusters of commodity computers to specialized supercomputers, and associated data storage, all connected to each other and to users via high-speed networks. This is critical infrastructure for modern scientific research.
- Broad Institute: Launched in 2004 as a partnership between MIT and Harvard, the Broad Institute<sup>82</sup> seeks to improve human health by using genomics to advance our understanding of the biology and treatment of human disease, and to help lay the groundwork for a new generation of therapies.
- Consortia for Improving Medicine with Innovation and Technology (CIMIT): One of a range of programs through which MIT researchers collaborate with the Massachusetts General Hospital, CIMIT<sup>83</sup> is a network of academic and medical institutions partnering with industry and government to foster collaboration among clinicians, technologists, and entrepreneurs in order to accelerate innovation and the discovery, development, and implementation of innovative healthcare technologies.
- Woods Hole Oceanographic Institute: MIT also has a range of collaborative efforts with the Woods Hole Oceanographic Institute.<sup>84</sup> They co-host a joint graduate program<sup>85</sup> in marine science with particular strengths in sensors and robotics. The program brings together experts in applied ocean science and engineering, chemical oceanography, biological oceanography, marine geology and geophysics, and physical oceanography.
- MIT Media Lab Cities Partnerships: The Media Lab's City Science research group<sup>86</sup> develops strategies for creating the places where people live and work, and the mobility systems that connect them. They investigate, for example, how new models for urban architecture and personal vehicles can be more responsive to the unique needs and values of individuals through the application of disentangled systems and smart customization.

- MIT Industrial Liaison Program: The Industrial Liaison Program<sup>87</sup> (ILP) is dedicated to creating and strengthening mutually beneficial relationships between MIT and corporations worldwide. Established in 1948, the ILP provides more than 200 of the world's leading companies with access to MIT faculty and their expertise. The ILP's Startup Exchange<sup>88</sup> is a web community that lists more than 1,000 MIT-connected startups in various stages of development.
- Tata Center for Technology + Design: Researchers at the Tata Center for Technology + Design<sup>89</sup> at MIT work closely with on-the-ground collaborators and community members to design appropriate, practical solutions to the persistent and emerging challenges of the developing world. They seek novel and creative ways to use sophisticated science and technology to bring the benefits of modernity to resource-constrained communities. Their strategy is to have a large and sustained impact by translating our ideas and discoveries into affordable products and services, scientifically-informed policy tools, and entrepreneurial ventures.
- MIT Collaborative Initiatives: Addressing today's most challenging issues requires soliciting input from as wide a range of experts as one can find. Non-traditional viewpoints can broaden debates and lead them in new directions. The MIT Collaborative Initiatives<sup>90</sup> aims to promote a systems-based approach to solving deep-rooted societal issues by engaging experts from a broad range of disciplines both within and outside the scope of a problem.
- Leaders for Global Operations: MIT's Leaders for Global Operations<sup>91</sup> (LGO) program offers a two-year curriculum that places students in research internships at elite partner companies. Students develop leadership skills to manage operations units in the pharmaceutical, manufacturing, energy, high-tech, and global supply chain industries. During the program, students combine advanced engineering and management knowledge, which makes LGO graduates among the most sought after on the job market. LGO alumni lead a variety of product development, global operations, and manufacturing development initiatives at leading companies and entrepreneurial ventures throughout the world.
- edX: In 2012, MIT and Harvard teamed up to launch edX<sup>92</sup>—an ambitious partnership to deliver online education to learners anywhere in the world. The venture now has 52 partner universities, offers more than 1,300 courses, and has provided millions of people worldwide with access to new educational opportunities.
- Innovation programs: Cultivating and providing opportunities for the entrepreneurial spirit of MIT students and faculty is an Institute priority. Faculty and students have access to a myriad of programs, centers, and initiatives that help them translate the work they are doing in their labs and classrooms for use in the world. Programs like MIT's Sandbox Innovation Program<sup>93</sup> and Deshpande Center for Technological Innovation<sup>94</sup> provide funding and mentorship to support innovative ideas. And for the broader innovation community of Boston, last year MIT started The Engine<sup>95</sup> described above. Office of Engineering Outreach Programs
- (K-12) Office of Engineering Outreach Programs: The MIT Office of Engineering Outreach Programs<sup>96</sup> (OEOP) offers a range of K-12 programs that have proven to be especially effective at diversifying the broader science and engineering community. It's Saturday Engineering Enrichment and Discovery<sup>97</sup> (SEED) program serves students from Boston, Cambridge, and Lawrence public schools. And since 1975, OEOP has been home to the MITES<sup>98</sup> program, a national model that has been replicated at universities across the country since it was established.
- (K-12) Edgerton Center: The MIT Edgerton Center<sup>99</sup> offers hands-on science and engineering challenges to educate and inspire kindergarten through 12th-grade students, aiming to increase their curiosity and desire to pursue these fields in their future. From intensive summer programs to daily classroom visits, the center's activities are focused on the Boston MSA. The center supports over 150 on-campus classroom workshops annually, plus intensive summer programs, innovative curriculum, and teacher professional development.
- (K-12) Office of Digital Learning: MIT's Office of Digital Learning<sup>100</sup> is working to transform pre K-12 Education by inspiring young learners and teachers in STEM (Science, Technology, Engineering, and Mathematics) subjects through its many programs.<sup>101</sup> MIT students and faculty are immersed in an intense and joyful process of experimenting, tinkering, investigating, and inventing. Underlying this process is a deep-seated commitment to making the world a better place. A recent manifestation of this vision is the 2014 Institute-Wide Task Force Report on the Future of MIT Education,<sup>102</sup> which calls for coordinating many existing MIT K-12 initiatives and working toward a greater impact for the pre-college work that is taking place on campus.
- (K-12) Boston Stem Week: STEM Week is an immersive program that transforms middle schools into STEM learning labs. During STEM Week, regularly scheduled course periods are replaced by a hands-on curriculum developed by MIT and other organizations. Teachers and

students work in teams to solve real-world problems with a focus on hands-on experimentation, critical thinking, and collaboration. In October 2017, Boston STEM Week brings hands-on STEM experiences to 37 middle schools, 300 teachers and 6,500 students.

- Cambridge Science Festival: MIT has played a leadership role in the annual Cambridge Science Festival, a 10-day celebration offering over 250 events and attracting 100,000 visitors to inspire both children and adults across New England to take an interest in STEM.

### **Northeastern University**

Northeastern, a global research university with regional campuses in Charlotte, North Carolina, Seattle, Washington, Silicon Valley/San Jose, California, and Toronto, Ontario, is the recognized leader in experiential learning. The university boasts the world's most far-reaching and innovative cooperative education program which blends classroom study and professional experience. Northeastern draws from an outstanding pool of highly-talented students who come from around the world: three-quarters of Northeastern's fall 2017 freshmen graduated in the top 10 percent of their high school class. Northeastern University is the only university with campuses in both Boston and Seattle. Situated directly across from Amazon's Seattle headquarters in South Lake Union, Northeastern-Seattle has tailored its educational and research focus around the needs of Seattle's employers. More than 500 Northeastern students have completed full-time six-month internships at Amazon during the last five years. In both Boston and Seattle, Northeastern is helping to produce a pipeline of talent for firms like Amazon, minting approximately 5,000 graduates each year in computer science, engineering, business administration, and science.

#### *Programs and Partnerships*

- Kostas Research Institute: Among its discovery-focused partnerships, Northeastern has co-located its research faculty side-by-side with the R&D arms of industry and government partners at the Kostas Research Institute on their Innovation Campus in Burlington, Massachusetts.
- Customized Learning Partnerships: Northeastern places a priority on working closely with businesses to expand their employees' educational opportunities and advance innovative solutions responsive to their customer needs at all stages of their careers. Recent customized learning partnerships have included GE, IBM and Major League Baseball.
- IDEA: Northeastern University's student-led Venture Accelerator provides entrepreneurs in the Northeastern community with the support, in-kind resources and educational experience of developing a business from

core concept to launch. Since inception, IDEA has launched 46 ventures and has helped raise \$46 million in funding.

#### *Potential Creative Programs*

- ALIGN: Through this signature program, piloted in Seattle, more than 600 professionals seeking to transition into jobs in high-growth fields are currently pursuing accelerated master's degrees in cybersecurity, computer science, data analytics, project management, and engineering.
- Amazon Web Services Academy: Northeastern is one of only a handful of institutions to be selected to offer an industry boot camp as a pilot member of the Amazon Web Services Academy.
- Northeastern 2025: Northeastern's new academic plan is a transformative vision for higher education. It is designed to ensure that learners and innovators are agile, adaptable and creative problem solvers in rapid and highly automated environments.
- Discovery networks: To enable researchers to connect globally, free from the cultural, geographic, disciplinary and organizational silos that limit innovation, Northeastern will initiate joint faculty appointments with industry and academic partners, faculty exchanges, and "co-op for faculty" industry partnerships.
- K-12 Curricula: Northeastern is currently working with 70 schools and public school districts nationally to expand experiential learning.

### **Olin College of Engineering**

Olin is known as the 3rd best undergraduate college for engineering in the U.S., and in 2013 its three founders received the Bernard M. Gordon Prize, one of engineering's highest honors.<sup>103</sup> Students choose to focus on electrical and computer engineering or mechanical engineering while all students gain an academic background in communication and entrepreneurship. Olin has innovative partnerships with various other educational institutions in the area, including Wellesley, Babson, Brandeis, and Massachusetts College of Art and Design. These partnerships supplement students' knowledge and experience in non-engineering fields.

### **Simmons College**

Committed to increasing gender diversity in the workplace, Simmons is an all-women undergraduate college that additionally offers a co-ed graduate program. Simmons has received numerous national rankings for its academic offerings, the school boasts: a top 25 entrepreneurship program in the country, a #1 MBA for women business students, and a #12 School of Library and Information Science graduate program in the country. Moreover, Simmons offers a Data Science and analytics

undergraduate program that combines, statistics, project management skills, and computer science.<sup>104</sup>

Simmons has a recognized Executive Education program that is specifically designed for women in management positions. Furthermore, Simmons's programs are available both for individuals and for organizations.

#### *Programs and Partnerships*

- PLAN: PLAN (Purpose Leadership Action) is an innovative undergraduate curriculum that provides a framework for young scholars to engage with the city and is designed to prepare Simmons students to become leaders in their fields.
- Boston Course: Boston Course is a writing intensive that helps students develop writing skills, literacy, and critical analysis.

#### **Suffolk University**

Suffolk University ranked as a tier one institution by U.S. News and World Report, has over 7,500 students, a campus in Madrid and an alumni network of 80,000 that stretches around the globe.

#### *Programs and Partnerships*

- Big Brothers Big Sisters of Massachusetts Bay: Suffolk University and its student athletes offer mentoring to the students at the Donald McKay School in East Boston. This is part of Suffolk's effort to provide opportunities for young people and athletes in East Boston.
- E-Clinic: The E-clinic is located in Suffolk University's Center for Entrepreneurship; it shares space with the Center's Prototyping E-Lab. The E-Clinic provides a venue for undergraduate entrepreneurship majors to assist small businesses and startups. Specifically, students help startups accomplish objectives, such as identifying new opportunities, growth, product development, and planning.
- Center for Entrepreneurship: At the Center for Entrepreneurship, students are trained to launch startups, grow and manage businesses, and bring value to existing organizations.
- Start-up Institute: At the Start-up Institute, instructors offer classes in web development, web design, digital marketing, and sales and account management.
- Marshall Brennan Constitutional Literacy Project: Suffolk law students simultaneously learn and study constitutional law, and then teach it to students in Boston high schools in urban minority population areas.
- Moakley Center for Public Management: The center actively engages the local community, fosters public discourse, supports and advises community organizations and provides educational opportunities to build human capital in the public service industry.

- Trauma Center at Justice Resource Institute: The Institute develops and evaluates the effectiveness of integrating complex trauma treatments and resources into state and community agencies across the US on an unprecedented scale including delivery of the only trauma training and technical assistance to the most underserved and remote corners of the country.
- The e-Health Innovation Project: The e-Health Innovation Project supports the innovation, learning and applied research in the design, implementation, management and use of health information technology.
- Massachusetts Production Coalition: This higher education coalition is comprised of the department chairs of media/film programs which aim to create internship opportunities for students.
- (K-12) The Gateway Initiative: A cross-sectoral collaboration undertaken by the Boston Public Schools in partnership with TechBoston Academy, a pilot high school, and the College of Arts and Science at Suffolk University, the Gateway Initiative is aimed at increasing the academic preparedness of incoming first-year college students, especially those from urban schools.

#### **UMass**

The UMass system has six campuses, three of which can be reached by public transportation from Boston (UMass Boston, UMass Lowell, and UMass Medical School). UMass was named number 52 on Reuter's Most Innovative Universities in the World list. UMass research funding reached a record high last year at \$632 million, making it the 3rd largest research university in Massachusetts, and fourth largest in New England. UMass offers a set of diverse business programs, including accounting and finance, management, marketing, and management science and information systems. UMass's Venture Development Center has incubated 78 companies that have raised over \$488 million in private investment since 2009. UMass Boston also offers engineering and computer science programs.

#### *Programs and Partnerships*

- Broadening Advanced Technological Education Connections (BATEC): Sponsored by the National Science Foundation ATE Program, BATEC is the National Center of Excellence for Computing and Information Technologies. BATEC is dedicated to increasing both the capacity and the robustness of career-focused pathways in the fields of Computer Science, Information Technology, Computer Networking and Data Analysis. Academic partners include community colleges in Boston, Chicago, Springfield, Las Vegas, San Francisco and Fort Lauderdale.

- (K-12) The Center of Science and Mathematics in Context (COSMIC): COSMIC works in partnership with the Boston Public Schools and other local school systems to assist with the preparation of the next generation of science and technology teachers.
- (K-12) Success Boston: Boston's citywide college completion initiative, in partnership with the Boston Foundation, the Boston Public Schools, the City of Boston, 37 area institutions of higher education and local nonprofit partners, is working to double the college completion rate for students from the Boston Public Schools.

#### *Potential Creative Program*

- Sustainable Solutions Lab at UMass Boston: With the goal of tackling the complexity of the intersection of climate and social equity to create resilient communities within a just, inclusive, and sustainable economy, the SSL is developing research based solutions through an interdisciplinary and collaborative approach that leverages the assets of the entire five-campus UMass system and neighboring universities.

#### **Wentworth Institute of Technology**

Wentworth Institute of Technology is an independent, co-educational, nationally ranked university with students hailing from 28 different states and 60 countries.

Wentworth offers career-focused education through 17 bachelor's degree programs in areas such as applied mathematics, architecture, business management, computer science, computer networking, construction management, design, and engineering. The Institute also offers master's degrees in applied computer science, architecture, civil engineering, construction management, facility management, and technology management.

Wentworth has garnered national attention for its academic offerings: "Best in the Northeast" school by Princeton Review for over a decade; ranked number 44 for best undergraduate engineering programs by U.S. News and World Report; and a Construction Management program that is ranked number 1 by College Factual.

#### *Programs and Partnerships*

- (K-12) *Boston Pipeline Program: This program works with Boston schools to recruit and graduate underrepresented minorities and women from Boston into the new STEM workforce.*
- (K-12) RAMP: A six-week summer bridge for Boston residents, RAMP provides residents with the opportunity to collaborate with communities, industry partners and classmates to propose a solution that addresses specific social problems throughout Boston. Although RAMP participants are primarily first-year Wentworth students, the program has expanded to engage Boston high school females to help increase interest in STEM careers for young women.

#### *Potential Creative Programs*

- ACCELERATE: Wentworth's Innovation and Entrepreneurship Center houses interdisciplinary extracurricular programs that aim to cultivate innovative thinking and entrepreneurship.

#### **Worcester Polytechnic Institute (WPI)**

Worcester is a mid-sized city located in Central Massachusetts, an hour commuter rail ride away from Downtown Boston. Worcester is home to WPI, a top 50 university with the 10th best career placement program in the country.<sup>105</sup> WPI has a unique project-based learning curriculum that allows its engineers-, managers-, and scientists-in-training to get hands-on experience in research and industry. The Foisie Business School offers traditional business programs, along with more tech-oriented alternatives, such as Industrial Engineering, Management Information Systems, and Management Engineering. Its graduates have gone on to work for top companies, including Amazon and Amazon Robotics.<sup>106</sup> WPI also offers electrical and computer engineering, computer science, data science, cybersecurity, and finance and industrial mathematics programs. All programs require major qualifying projects, often ones that students complete in research labs around the country and world.

#### *Potential Creative Programs*

- 303 Congress Street, Seaport, Boston: Recognizing the considerable growth in targeted areas of critical importance as major corporations such as General Electric and Red Hat move to Boston, WPI is setting up an innovation and collaboration space in Boston's Seaport district.

**6.2 A list of universities and community colleges with relevant degrees and the number of students graduating with those degrees over the last three years**

**Table 3: Degrees Conferred by Boston Area Universities 2014–2016**

**Colleges in Boston with programs in Engineering, Mathematics, Physical Sciences, Business, or Law**

Institution	Engineering	Computer and Information Sciences and Support Services	Mathematics and Statistics	Business Management, Marketing, and Related Support Services	Legal Professions and Studies	Total Degrees in all Fields
Northeastern University	3,772	1,205	165	4,302	661	19,049
Boston University	1,974	1,335	438	5,419	1,375	30,728
Boston College	0	161	153	2,791	794	12,276
Suffolk University	40	81	10	2,621	1,551	7,182
University of Massachusetts—Boston	9	520	48	1,893	29	11,441
Northeastern University Professional Advancement Network	50	416	0	3,223	27	7,728
Wentworth Institute of Technology	859	264	17	580	0	2,640
New England College of Business and Finance	0	0	0	834	0	849
Bay State College	0	2	0	200	0	853
Emerson College	0	0	0	788	0	3,853
Fisher College	1	28	0	423	8	1,100
New England Law—Boston	0	0	0	0	844	844
Emmanuel College	0	0	17	485	0	1,745
Simmons College	0	27	13	268	0	4,855
Wheelock College	0	0	23	37	0	1,165
Benjamin Franklin Institute of Technology	149	0	0	3	0	541
All Other Colleges and Universities (Boston)	97	606	35	1,061	49	20,604
<b>Total Boston Degrees Conferred</b>	<b>6,951</b>	<b>4,645</b>	<b>919</b>	<b>24,928</b>	<b>5,338</b>	<b>127,453</b>

Source: National Center For Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS)

Note: All Levels includes Associate's Degrees, Bachelor's Degrees, Master's Degrees, Doctorate degrees, and some certificates. Any mismatch between the Bachelor's, Master's, and Doctor's column and the All Level column can be attributed to Associate's Degrees and relevant certificates.

Note: All Other Colleges and Universities includes community colleges (2 in Boston and 4 in the 5-county area), technical and specialty schools (5 in Boston, and 14 in the 5-county area), and art and religious schools (8 in Boston, and 6 in the 5-county area)

## Table 3: Degrees Conferred by Boston Area Universities 2014–2016

**Colleges in 5-county region (except city of Boston) with programs in Engineering, Mathematics, Physical Sciences, Business, or Law**

Institution	Engineering	Computer and Information Sciences and Support Services	Mathematics and Statistics	Business Management, Marketing, and Related Support Services	Legal Professions and Studies	Total Degrees in all Fields
Massachusetts Institute of Technology	4,118	1,351	377	2,377	0	10,429
University of Massachusetts—Lowell	2,113	1,261	159	2,116	0	11,770
Bentley University	0	304	33	5,001	0	5,519
Harvard University	609	520	669	3,547	2,344	22,652
Babson College	0	0	0	3,293	0	3,293
Bridgewater State University	0	81	149	1,072	0	7,529
Salem State University	0	53	48	1,129	0	6,339
Tufts University	994	306	109	94	34	10,167
Merrimack College	116	39	20	610	0	2,260
Endicott College	2	52	3	876	0	3,221
Framingham State University	0	77	34	519	0	4,234
Cambridge College	0	0	0	579	0	3,205
Brandeis University	0	364	76	691	0	5,375
Hult International Business School	0	0	0	1,955	0	1,955
Lasell College	0	0	10	515	22	1,493
Curry College	0	29	0	363	0	2,271
Dean College	0	0	2	236	0	924
Franklin W Olin College of Engineering	243	0	0	0	0	243
Eastern Nazarene College	13	1	4	305	0	947
Gordon College	0	17	31	125	0	1,381
Newbury College	0	13	0	156	8	480
Mount Ida College	0	0	0	190	0	917
Massachusetts School of Law	0	0	0	0	352	352
University of Phoenix—Massachusetts	0	30	0	128	0	159
Lesley University	0	0	34	100	0	5,011
Wellesley College	0	98	52	0	0	1,731
The New England Institute of Art	0	39	0	51	0	518
Regis College	0	1	0	72	0	2,008
Hellenic College—Holy Cross Greek Orthodox School of Theology	0	0	0	10	0	164
All Other Colleges and Universities (5-County)	986	1,256	10	2,780	262	26,028
<b>Total 5-county degrees conferred (except Boston)</b>	<b>9,194</b>	<b>5,892</b>	<b>1,820</b>	<b>28,890</b>	<b>3,022</b>	<b>142,575</b>

### College outside of the 5-county region

Institution	Engineering	Computer and Information Sciences and Support Services	Mathematics and Statistics	Business Management, Marketing, and Related Support Services	Legal Professions and Studies	Total Degrees in all Fields
Worcester Polytechnic Institute	3,141	492	245	543	0	4,903
<b>Total outside of the 5-county region degrees conferred</b>	<b>3,141</b>	<b>492</b>	<b>245</b>	<b>543</b>	<b>0</b>	<b>4,903</b>

### 6.3 Information on local/regional K-12 education programs related to computer science

Since founding the United States' first public high school in 1647, Boston has remained committed to fostering a highly educated and highly skilled population. Boston Latin School, one of three public exam schools, is frequently ranked as the top public high school in Massachusetts.<sup>107</sup> In 2017, Massachusetts was ranked as the top state in the nation for public education.<sup>108</sup> The Boston Public Schools (BPS) district, the nation's first public school system, educates approximately 55,000 students in 125 schools;<sup>109</sup> approximately 77% of all BPS students identify as Hispanic or Black. BPS educates more than 17,000 students in grades 9-12. Today, the BPS district is an award-winning public school district that boasts academic and technical pathways that feed into the network of world-class higher education institutions and companies in Boston. BPS continues to expand its network of meaningful partnerships in collaboration with higher learning, philanthropy, community-based organizations, and the private sector. Boston's diverse range of educational partners and programs drive innovation, growth, learning, and thoughtful design through continuous realignment—a benefit for living, working, and attending school in Boston.

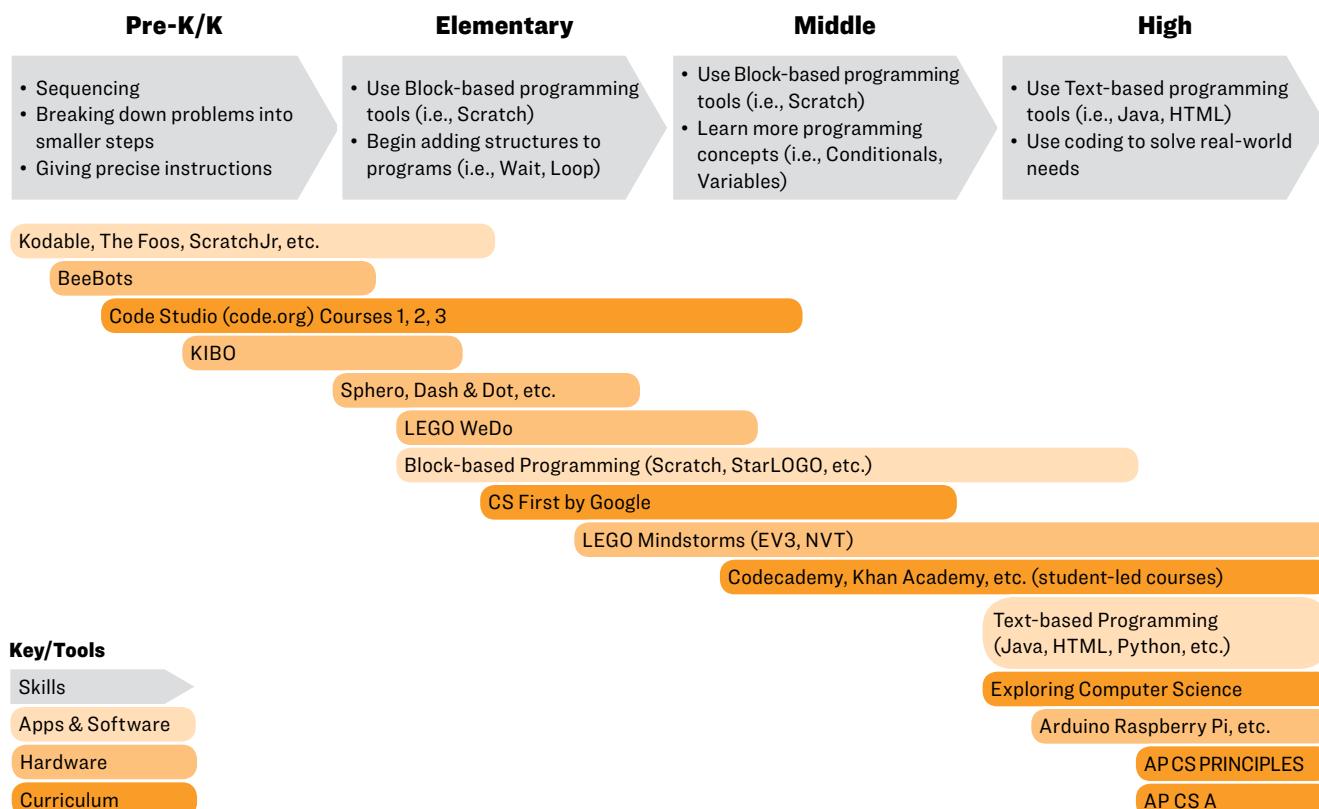
The public school districts in the Boston MSA boast academic and technical pathways that feed into the region's network of world-class higher education institutions in Boston and the region. Computer Science

is rapidly emerging as a more explicit expectation in K-12 schools in Massachusetts. This need is also reflected in the development of the new draft statewide Massachusetts Digital Literacy and Computer Science Standards. Often called the "new literacy," computational thinking is a foundational skill that is essential in any discipline or career field that students pursue: it is now a core tenant in the BPS curriculum and will assist students as they program, design and solve algorithms and troubleshoot.

BPS and its Office of Instructional and Information Technology's (OIIT) Digital Learning Team are committed to ensuring that all BPS students are equipped with the relevant skills for their future careers. The BPS are committed to integrating computer science into all levels of education, offering computer science programming across the district and throughout the K-12 system. Building towards digital literacy and comprehensive computer science education, important skills that will help BPS students in other academic areas such as math and ELA, but also outside of the classroom, begins at a young age in the BPS.

The graphic below is a visualization of skills that students should be learning at each grade span, along with a snapshot of software, hardware, and curriculum tools that are commonly used to teach computational thinking in preK-12. These tools are already being used in BPS schools. Please note that this is in no way an all-inclusive picture; this is simply a snapshot as new tools are constantly being introduced.

### Skills learned through School



TechBoston supports engineering programs in preK-12 schools, including Lego Robotics competitions and learning programming from Scratch. In the 2016-2017 academic year, approximately 70% of BPS students participated in Hour of Code, a global movement that reaches tens of millions of students around the world. BPS students competed on projects such as Scratch animation, game design, web development, Java and Python programming, and dynamic visualization.

Elementary school students build on basic skills to begin coding by using graphical programming tools such as Scratch. Middle school students continue with graphical programming tools to learn more advanced concepts such as conditionals and variables. Using these concepts, students can design more advanced programs, games, and simulations. Many projects relate closely with math or science concepts but may also be integrated with ELA, art, or other subjects.

In high school, students transition from graphical programming to text-based programming such as Python, Java, and HTML. This allows students to create more sophisticated programs that apply to real-world needs, as well as prepare them for pursuing Computer Science in college and professionally. By their junior or senior year, interested students have access to college-level courses through CS Principles, AP or dual-enrollment programs at their schools and/or nearby universities or colleges.

Boston's flagship Computer Science Advanced Placement Programs are based in BPS' three exam schools including: Boston Latin School, a top tiered school ranked nationally annually and built to be a feeder to Harvard College; John D. O'Bryant School for Mathematics and Science, built to be a feeder to MIT; and Boston Latin Academy. In addition, students at the Dearborn STEM Academy, which is moving to a new state-of-the-art facility in 2018, benefit from the required CS Principles course, which promotes Computer Science for all. Tech Boston, which is currently building a STEM media lab, requires all students to become competent in an array of industry-standard technologies, including computer science. Tech Boston also offers Advanced Placement Computer Science.

Summer programs in Boston extend the opportunities for students to learn about computer science:

- Tech Apprentice Program: The Tech Apprentice Program is a seven-week internship experience at local companies for technology- skilled high school juniors and seniors from the City of Boston. The program is part of the Mayor's Summer Jobs Program and is managed by the Boston Private Industry Council (PIC) and with the support from the Boston Public Schools.

- Girls Who Code Summer Immersion Programs: This free 7-week summer immersion program for 10th-11th grade students provides young women with opportunities to learn computer science. Additionally, the young women visit tech companies in order to better understand industry.
- Artemis: Artemis is a five-week Boston University summer program that is designed for rising 9th grade women who seek to explore the field of computer science.
- Codebreakers: Codebreakers is a four-week Boston University summer program that provides young women who are currently either freshmen or sophomores in high school with an introduction to the fundamentals of cybersecurity and computer science. This program operates in partnership with many prominent, local organizations (Boston Children's Hospital, LabCentral, etc).
- Youth CITIES' L3 Innovation Challenge: This program combines engineering, computer, and life sciences for a unique hands-on classroom experience, industry guest speakers, heavily mentored discussions, and prototyping (with gadgets and physical components to take apart and repurpose).

### **Charter Schools**

In addition to the Boston Public Schools, charter schools in Boston are increasingly incorporating computer science curricula in the classroom. Offerings range from multi-week courses (Conservatory Lab Charter) to semester-long electives (Boston Collegiate Charter, Match Charter and Boston Prep Charter) to required grade level and grade span classes (Edward Brooke Charter). Subject matter areas include computer science, programing and coding, engineering, robotics and internet safety. Students are using tools like Scratch Jr., Scratch, Arduino and Lego Robotics Kits in many of their courses.

Local charter schools are also partnering with organizations specializing in STEM learning to develop in-school and out-of-school time learning opportunities. For example, Excel Academy Charter is teaming with Project Lead the Way to develop its high school Computer Science and Biomedical Science programs. Project Lead the Way is a national organization that helps schools develop and activate applied, project-based STEM learning approaches. Boston Collegiate Charter School is partnering with I2 Learning to offers its middle grades students a free, two-week summer engineering camp. I2 Learning aims to help schools and districts turn classrooms into STEM learning labs and partners with the Boston Public Schools.

## Question 7

*Please provide highway, airport, and related travel and logistics information for all proposed sites. Please also include transit and transportation options for commuting employees living in the region. For each proposed site in your region, identify all transit options, including bike lanes and pedestrian access to the site(s). Also, list the ranking of traffic congestion for your community and/or region during peak commuting times.*

### **7.1 Highway, airport, and related travel and logistics information for all proposed sites**

Please review Chapter 3: Boston, Your Home for comprehensive proposed details on transit and transportation services for site options.

### **7.2 Transit and transportation options for commuting employees living in the region**

Boston has an extensive web of rail transit for regional and local access and a robust international airport. From global to regional connections, getting to and around Boston is easier than ever.

Boston's connections to the downtown area from surrounding neighborhoods and towns include daily subway, bus, commuter rail, and ferry service. Located in East Boston, Logan International Airport is only 15 minutes from Boston's Financial District, connecting the city to the world with over 50 non-stop international routes.<sup>110</sup>

In addition, Boston's robust strategic plan, IB2030, will enhance transportation connectivity throughout the city. Go Boston 2030, the city's mobility plan, establishes a vision and actions to guide Boston's transportation goals over the next 5, 10, and 15 years.<sup>111</sup> [GoBoston 2030](#) lays out 58 transportation investment projects that support equity, climate responsiveness, and economic growth. Future plans include everything from driverless cars to bike share companies, dedicated bike lanes, pedestrian access, and bus rapid transit.

By 2030, the number of daily trips into Boston from the region is projected to increase by 6%, to a total of approximately one million. Over 75% of daily regional trips are projected to originate beyond the neighboring

communities of Cambridge, Somerville, and Brookline. Nearly 70% of daily regional trips are forecasted to be people in private vehicles, while only about 20% will be on transit, compared with 50% and 25%, respectively, for Bostonians. The regional travel model projected that almost half of these vehicle trips will be shared—whether because commuters use carpools, on-demand ride-hailing companies, and other private services, or because other drivers travel with family members.<sup>112</sup>

During the peak hours of the morning commute, 395,000 people head to destinations in Boston. Of these trips, 229,600 (60%) originate outside of Boston while the remainder start within the city. Of the workers entering Boston, 95,000 drive alone, 83,000 take transit, and 36,000 carpool. Transit trips represent a 36% mode share for trips entering Boston—higher than Bostonian's own transit mode share for commute trips of 33%.<sup>113</sup>

Currently 42% of homes in Boston are within a 10 minute walk from a rail station or key bus route stop, Hubway station, and carshare. Boston aspires to increase this share to 100% by 2030.<sup>114</sup>

#### **Biking and Walking**

Boston is one of the top 3 most walkable cities in the U.S. and Boston's Walk Score is 81 out of 100.<sup>115</sup> Almost 14% of Bostonians commute on foot. Boston is rated "very bikeable" because biking is convenient for most trips.<sup>116</sup> Commuting by bicycle is growing rapidly in Boston, from 0.9% of commuters in 2005 to 2.4% in 2016.<sup>117</sup> The GoBoston 2030 plan sets the goals of increasing walking to 20 percent and biking to 8 percent.<sup>118</sup>

Boston Bikes is part of Boston's vision for a vibrant and healthy city that benefits all its citizens. It seeks to make

Boston a world-class bicycling city by creating safe and inviting conditions for all residents and visitors. Since the start of Boston Bikes in 2007, ridership has more than doubled. Boston is committed to helping more residents and visitors to get on bikes and to making it safer to ride.

**Boston Bike Network:** Since 2008, Boston has undergone a significant expansion of bicycle infrastructure. The Boston Bike Network provides a vision for developing bike lanes and paths throughout the city. More than 125 Hubway stations have been deployed, and more than 100 miles of bike lanes have been installed to add to Boston's extensive legacy of off-road multi-use paths, including the Southwest Corridor and the Charles River. Hubway—Boston's regional bike share program, now has 1,800 bikes and 185 stations in Boston, Cambridge, Somerville, and Brookline.<sup>119</sup>

### **Public Transportation**

The Greater Boston area has an extensive and affordable public transportation network and one-third of workers who live in Boston commute to work by public transportation.<sup>120</sup> The GoBoston 2030 plan aspires to increase this share to 45 percent by 2030. As the nation's 5th largest public transit system, the MBTA serves a population of 4.8 million in 176 cities and towns.<sup>121</sup> In 2016, the MBTA commuter rail, subway, trolley, and bus lines made 336.4 million weekday passenger trips and typical weekday ridership on the subway is approximately 1.33 million passengers.<sup>122</sup> There are 1,392 one-way and non-duplicative route miles in the MBTA system and in total the MBTA has 219 service routes including 9 subway, 193 bus, 14 commuter rail, and 3 ferry routes.<sup>123</sup>

### **Regional Train Service**

There are nearly 20 weekday daily Amtrak train trips between Boston and New York City along the Northeast Corridor. In 2016, Amtrak carried more riders between New York City and Boston than all of the airlines combined. Furthermore, there are 18 weekday daily Amtrak train trips between Boston and Washington DC along the Northeast Corridor.<sup>124</sup> Many of these trips are on Amtrak's Acela Express service, which Amtrak reports is the fastest train in the Western Hemisphere. In 2016, Amtrak announced it will be improving this service by adding 28 next-generation highspeed trains to the line. Amtrak expects the first new train should be on the tracks by 2021 with all the new trains running by the end of 2022.

### **Regional Bus Service**

The Boston to New York route is served by multiple bus carriers. Together they provide over 70 daily bus trips on a typical weekday between those two cities—some express, others with stops in between. Additionally, there are 22 weekday daily bus trips from Boston to Washington DC on Greyhound, Peter Pan, and Megabus.<sup>125</sup>

### **Domestic and International Flights**

Logan International Airport, just 15 minutes from downtown Boston by public transportation, provides Bostonians access to the world with over 1,000 flights a day. According to MassPort, Logan Airport offers nonstop service to 75 domestic and 54 international destinations and serves more than 36 million passengers last year.<sup>126</sup> In 2016, Logan handled 310,000 domestic flights with almost 30 million passengers and 50,000 international flights with 6.6 million passengers.<sup>127</sup> Logan is served by 56 carriers including 30 foreign flag carriers and 11 low-cost carriers. Through July 2017, year to date domestic passengers increased by 5% while international passengers have increased by 12.2%. International non-stop destinations have more than doubled in the last 10 years.

Logan has multiple daily nonstop flights to major U.S. Cities,<sup>128</sup> including those of particular importance to Amazon:

#### *Boston to New York City Flights*

- Logan has more than 75 daily nonstop flights to New York City.
- In summer 2017, there were 403 weekly nonstop flights from Boston to New York City supported by four airlines; the number is projected to increase to 432 by summer 2018.<sup>129</sup> These flights serve JFK, La Guardia, and Newark airports.

#### *Boston to San Francisco Flights*

- Logan has 13 to 15 daily nonstop flights to San Francisco International Airport.
- In summer 2017, there were 126 weekly nonstop flights from Boston to San Francisco supported by four airlines; the number is projected to increase to 134 by summer 2018.

#### *Boston to Washington, DC Flights*

- Logan has approximately 50 nonstop flights per day to Washington DC.
- In summer 2017, there were 325 weekly nonstop flights from Boston to Washington, DC supported by five airlines.

#### *Boston to Seattle Flights*

- Logan International Airport has 5 to 7 daily nonstop flights to Seattle.
- In summer 2017, there were 54 weekly nonstop flights from Boston to Seattle supported by three airlines; the number is projected to increase to 56 by summer 2018.
- Internationally, Logan services Beijing (one direct flight daily), London (approximately 5 to 6 daily direct flights), Tokyo (one direct flight daily), Dubai (one direct flight daily), Frankfurt (one direct flight daily), and many other cities.

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**7.3 For each proposed site, identify all transit options, including bike lanes and pedestrian access to the sites**

Please see Chapter 3: Boston, Your Home for comprehensive proposed details about all transit options, including bike lanes and pedestrian access, for site options.

**7.4 Ranking of traffic congestion for the community and/or region during peak commuting times**

As the regional employment hub, Boston is the destination for hundreds of thousands of commuters every day. During the peak hours of the morning commute, approximately 395,000 people head to destinations in Boston. Of these trips, 229,600 (60%) originate outside of Boston while the remainder start within the city. Of the workers entering Boston, 95,000 drive alone, 83,000 take transit, and 36,000 carpool.<sup>130</sup>

According to a 2017 study by INRIX,<sup>131</sup> the Boston Metropolitan Area ranks eighth across all US cities for peak commuting hours spent in congestion with 58 hours annually per driver. Seattle ranks tenth with 55 hours annually per driver. Although Boston's rank of eighth suggests high congestion, residents of the top five metropolitan areas (Los Angeles, New York, San Francisco, Atlanta, and Miami) spend far more time, between 65 to 104 hours, each year in congestion. Additionally, Boston's measure of time in congestion has improved significantly since 2005 when there was a peak of 64 hours per driver spent in congestion each year.

In 2016, only 46% of Boston residents drove to work, down from 49% in 2006.<sup>132</sup> The City of Boston aims to reduce this share further through improvements to alternative transportation modes, thus further reducing traffic congestion. Thanks to the diversity of transportation options and density of job opportunities, Boston residents have an average commute time of under half an hour.<sup>133</sup>

## Question 8

*Please include information on your community with respect to daily living, recreational opportunities, diversity of housing options, availability of housing near potential sites for HQ2, and pricing, among other information. Please also include relevant crime data and cost of living data.*

### **8.1 Information on the community with respect to daily living**

Boston is one of the nation's fastest-growing regional economies not just because Boston is a great place to do business, but because Boston is a truly exceptional place to live. Boston is distinguished by its unique neighborhoods, each with its own individual flair and character. From walkable urban retail districts served by one of the nation's best transit systems to bike paths along the New England seacoast, Bostonians enjoy a lifestyle that is comparable to only a handful of US cities. Additionally, Boston's housing costs are dramatically less than peer communities such as San Francisco or New York.

#### **Boston loves dogs!**

Boston boasts a wide network of pet-friendly destinations, from parks to beaches to nearly 100 pet-friendly hotels and pet-friendly restaurants. The Joe Wex Dog Recreation Space (DRS) in the South End neighborhood became Boston's first city-sanctioned off leash dog-park in 2007. It provides a space in which dogs can run, play and socialize, with over 13,000 square feet of space (including a separately enclosed 3,000 square feet for small dogs). The Bremen Street Park in East Boston includes a half-acre dog park with dog exercise and agility centers. The historic Boston Common in Downtown also allows off-leash dogs during certain hours.

#### **World-renowned healthcare**

A world-renowned healthcare infrastructure and culture of exercise and wellbeing provides significant economic advantages and sustains a healthy lifestyle for the region's population. Boston is home to world-class hospitals and medical research. 2016 marked the 22nd consecutive year that Boston received the most National Institutes

of Health (NIH) funding of any U.S. City.<sup>134</sup> In 2015, there were 21 in-patient hospitals with a combined total of 6,079 beds located within the city.<sup>135</sup> The United Health Foundation ranks Massachusetts #2 in the United States for the healthiest state, citing the low prevalence of obesity, low percentage of population without insurance, and a high number of primary care physicians.<sup>136</sup> Boston has seen a 26% reduction in the premature mortality rate since 2000.<sup>137</sup>

#### **When you live in Boston, you never get bored!**

Highlights for shopping in Boston include over 4,500 retail and food services establishments throughout the city. Residents and visitors can pick from 20 neighborhood shopping districts supported by the Boston Main Streets program, retail in the Prudential Center, Copley Place, and Newbury Street, or choose market areas in the South End or Downtown for local artisans, crafts, and antiques.

Boston is home to four James Beard Award winners and 20 nominees, whose restaurants make up just a sampling of the city's food scene. Over 100 food trucks serve patrons at 20 locations throughout the city. Boston proudly supports a vibrant craft beer scene with breweries, wineries, and distilleries in downtown and in many of Boston's neighborhoods.

### **8.2 Information on the community with respect to recreational opportunities**

Boston is an exceptional place to live, work, and play with numerous recreational opportunities. The city is home to important historical sites, vibrant cultural activities, and exciting sporting events.

### Vibrant Open Space

With 98% of the population living within a ten minute walk of a park or open space, Boston's residents enjoy the natural beauty and outdoor recreation within the city. Almost 23% of the land in Boston is dedicated to public open space, comprising more than 7,000 acres.

There is no shortage of green space sprinkled throughout Boston. The Boston Parks and Recreation Department oversees roughly 217 parks, playgrounds, and athletic fields. The Boston Common is a 50-acre park in Downtown Boston and the oldest park in the U.S. The Emerald Necklace is a 1,100-acre chain of nine parks linked by parkways and waterways designed by legendary landscape architect Frederick Law Olmsted. The Charles River Reservation, a park extending 20 miles along the Charles River, offers parkland and accessible water recreation. Franklin Park is a massive park with 485 acres, including a golf course, stadium, and zoo. Belle Isle Marsh Reservation in East Boston is an urban nature preserve and public recreation area protecting 188 acres of the 241-acre Belle Isle Marsh.

Bostonians also have plenty of options when the temperature rises. There are ten public beaches and 17 community pools in Boston, and the Boston Harborwalk provides 40 miles of public access to the Boston Harbor that link neighborhoods from Dorchester to East Boston. Boston's harbor is marked with 34 harbor islands, some of which are public parks and accessible by ferry or private boats for hiking, camping, and events.

### Events and Attractions

Boston is one of the top 10 destinations in North America for conventions, meetings, and trade shows. The Boston Convention & Exhibition Center, along with the John B. Hynes Veterans Memorial Convention Center, hosted 255 events with over 762,000 attendees in 2016.<sup>138</sup> In 2016, over 500 public events, ranging from parades, to block parties, to concerts, were guided through the Mayor's Office of Tourism, Sports, and Entertainment, drawing thousands of attendees and visitors.

This is all in addition to Boston's well-known sports attractions—from the historic Boston Marathon, which attracts thousands of runners and spectators annually, to the Boston Red Sox, Boston Bruins, and Boston Celtics who play dozens of home games at TD Garden and Fenway Park in Boston. The New England Patriots and New England Revolution play just outside Boston, and their games are easily accessible by train.

### Cultural Attractions

The Boston metropolitan area has 16 major museums, which cultivate an appreciation for art, science, and history. Boston is home to eight of the ten largest museums in Massachusetts including the Museum of Fine

Art, one of the most comprehensive art museums in the world, the Isabella Stewart Gardner Museum, Museum of Science, and John F. Kennedy Presidential Museum and Library. The Harvard Art Museums include the Fogg Art Museum, Arthur M. Sackler Museum, and Busch-Reisinger Museum. The Institute of Contemporary Art champions "innovative approaches to art" on the South Boston Waterfront, and is expanding to East Boston.

Boston is also home to many landmark cultural attractions. The Boston Public Library, founded in 1848, was the first large free municipal library in the United States and holds several first edition folios by William Shakespeare and original music scores from Mozart to Prokofiev. The Boston Museum of Science is one of the world's largest science centers. The New England Aquarium is a global leader in marine conservation, and the MIT Museum houses an impressive collection of holography, artificial intelligence, and robotics.

Additionally, there are over 500 pieces of public art in Boston. The Mayor's Office of Arts and Culture administers ongoing programs including the Boston Open Studios Coalition, City Hall Galleries, Artist Certification Program, Alternative Space Pilot Project for artists, and Public Art Requests for Proposals. Through these programs, patrons can talk to and buy art directly from artists, visit art exhibitions, and apply for non-traditional space to create projects and rehearse.<sup>139</sup>

Boston also boasts nine local historic districts across the city. In Downtown Boston, Faneuil Hall is one of the top tourist attractions in the world, steps from the historic Freedom Trail. The Freedom Trail is a 2.5-mile walking route connecting 16 historic sites. The Boston Tea Party Museum was voted "New England's Best New Museum" by Yankee Magazine. The Black Heritage Trail is a tour of sites important to Boston's 19th century African-American community.

Known as Boston's "Theatre District," Washington Street and Tremont Street in Downtown are home to eleven out of the eighteen theaters in Boston. Annual theater offerings include the Boston Ballet, Nutcracker, Broadway Musicals, Shear Madness, and the Blue Man Group. Located near Harvard University's campus, the American Repertory Theatre was named by Time Magazine as one of the five best theatres in the United States. Huntington Theatre Company is Boston's leading professional theatre and recipient of the 2013 Regional Theatre Tony Award. The Colonial Theatre, built in 1900, is the oldest continuously operating theatre in Boston.

The House of Blues, just steps from Fenway Park, is a joint restaurant and concert venue, and neighbors smaller venues throughout the Allston and Brighton neighborhoods of Boston. The Boston Calling Music

Festival occurs twice annually and attracts a wide range of performers, comedians, and fans over three days. TD Garden and Fenway Park attract over 3 million concert and event attendees annually with a wide range of professional sports games, international sports, extreme sports, and NCAA competition.

### **Nearby Attractions**

New England is famous for its beautiful seasons, and Boston serves a gateway for all to explore and experience. Boston is a 2-hour drive from 11 area ski resorts within New England, and 3 hours from over 20 premier ski resorts. Just a scenic 60-mile drive south of Boston is Cape Cod, which offers 60 public beaches and access to Martha's Vineyard and Nantucket. Travelers can also take a 90 minutes high-speed ferry from downtown Boston to Provincetown, Cape Cod. Hikers can explore nearby Blue Hills Reservation or Merrimack Valley for picturesque views and more challenging terrain. A drive straight across the state on the Massachusetts Turnpike provides access to the Berkshires where outdoor enthusiasts have a myriad of options to experience nature. Our seasons also bring along nearby cultural activities to explore. During the fall, Bostonians flock to nearby Salem for Halloween celebrations and historical tours to learn about the Salem Witch trials and surrounding suburban and rural towns for apple picking. Our maritime and fishing industries along the coast are highlighted during the summer, and ocean enthusiasts can charter boats or embark on a whale watch from Downtown Boston.

### **8.3 Information on the community with respect to diversity of housing options**

Boston is committed to thoughtful planning, guiding our growth in a way that protects residents' quality of life and enhances inclusion. As part of the Imagine Boston 2030 framework, Boston is currently executing a data-driven housing strategy, one that allows for growth without displacement. The fundamental goal of Housing Boston 2030 is the creation and preservation of a wide variety of housing options at all income levels. Boston set a goal to add 53,000 new units of housing by 2030, based on projected population growth. 80% of Boston's goal to create 53,000 new units of housing by 2030 have been built, permitted or planned.<sup>140</sup>

Boston boasts a diverse housing stock, able to accommodate a diversity of household sizes and needs. Housing varies dramatically from the Victorian row houses of the South End to modern units in the Fenway and the South Boston Waterfront. Boston's historic three-family homes, or "triple deckers," represent the most common form of housing—71,932 units. More than one in six units is located in buildings of more than 50 units. Boston's studio, one, and two-bedroom apartments make up 88,733 units—30% of housing stock.<sup>141</sup>

Boston's partnerships with our local colleges have spurred plans for more than 3,000 new dorm beds through 2030. As of 2017, Boston has more than 40,000 existing dorm beds.

One of the strengths of Boston's housing plan is that it seeks to create housing at a variety of income levels, including middle-income housing, which is traditionally among the most difficult types of housing to produce feasibly. To that end, Boston continually pilots new, creative housing solutions through the Mayor's Housing Innovation Lab, which is housed in the Department of Neighborhood Development and partners with the first-in-the-nation Mayor's Office of New Urban Mechanics. The Innovation Lab creates pilots to explore new funding mechanisms, housing options, and housing cost reduction. Recent pilots include the exploration of Additional Dwelling Units (ADUs), a compact living design competition and a new program that matches graduate students with elderly homeowners.

In addition, as Boston continues to grow, we are mindful of protecting the tenancies of those communities that are vulnerable to displacement. In 2016, Mayor Walsh launched the Office of Housing Stability, which works to prevent displacement through promoting housing preservation and tenant stabilization. The office offers Boston residents housing crisis support; provides information about tenant and landlord rights and responsibilities; develops new programs and resources; and researches, drafts, and implements policies designed to prevent displacement and keep communities intact.

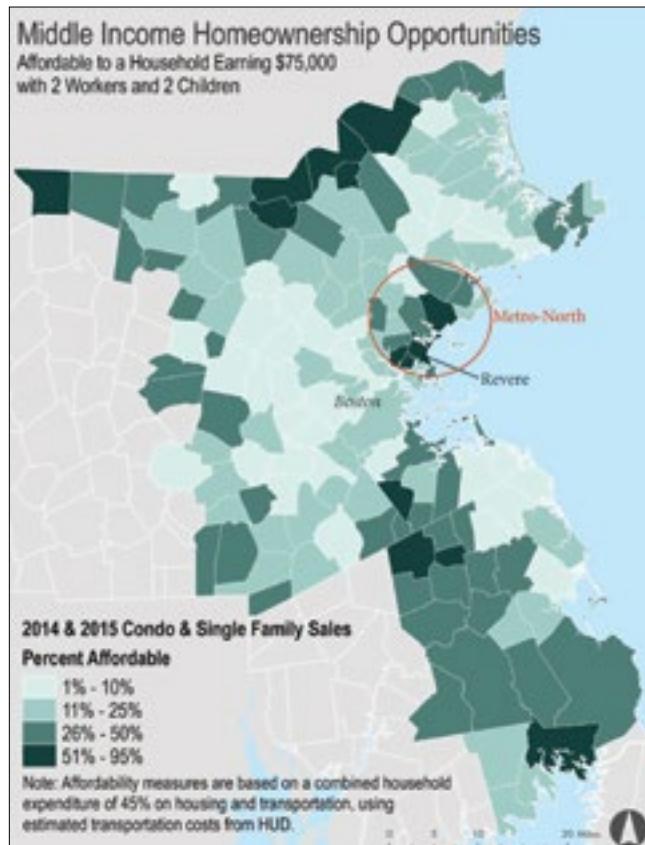
The City of Boston is also committed to ending veteran and chronic homelessness. Boston's Way Home, the City's action plan to end veteran and chronic homelessness, has redesigned the way Boston offers services to homeless individuals. Rather than counting on shelter as the solution to the issue, Boston has moved toward a housing-first model, where an individual's entrance into the shelter system is also their entrance to a path toward permanent, stable housing. In January 2016, Mayor Walsh announced Boston ended chronic veteran homelessness; to date, nearly 850 homeless veterans have been housed. In 2016, the City scaled up its efforts to end chronic homelessness, and 391 chronically homeless individuals have been housed since January of 2016. Through investments in housing, technology and system redesign, Boston is on track to meet its goal of ending chronic homelessness by 2018.

#### 8.4 Information on the community with respect to the availability of housing and pricing near potential sites

Boston's rapid growth is creating a phenomenal demand that results in price increases that affect Bostonians of all incomes. Current building efforts demonstrate Boston's long-term commitment to housing affordability, for Bostonians' diverse needs. Boston is a national leader in the creation of affordable housing; currently one in every five units of housing in Boston has a deed restriction on it, meaning that it is protected from the changes in the market. In addition, Boston is proactively encouraging housing growth that reduces pressure on existing neighborhoods and is implementing anti-displacement policies to protect existing communities.

Boston is committed to partnering with neighboring municipalities to identify and consider regional solutions to housing challenges. For example, Revere, a city adjacent to Boston, is among the most affordable cities in the area. The northern tier of the Boston metropolitan area also includes Chelsea and Lynn; together these cities create a regional cluster for residential options and opportunities. Collectively, the municipalities of Revere, Winthrop, Chelsea, Everett, Malden, Saugus, and Lynn—communities accessible by bus or train into Boston—plan or project over 8,900 units of housing.

See the below map that provides an overview of housing affordability in Boston, Revere, and the surrounding municipalities.<sup>142</sup>



#### 8.5 Information on the community with respect to crime data

The crime rate has been declining in Boston, and in 2015 it was half of what it was in 2000.<sup>143</sup>

Boston's crime rate is lower than most major cities, 4th lowest out of 34 comparison cities.

Boston is also a pioneer of community policing.<sup>144</sup> In 2015 the White House recognized Boston as one of 10 cities that have made significant improvements in community policing. The Boston Police Department was chosen for recognition because it "prioritizes relationships with youth and the community as the key to building trust and creating safe and thriving neighborhoods." The five-county region also has a low crime rate: 2,055 Part 1 crimes per 100,000 population.<sup>145</sup>

## Table 4: 2009–2015 Crime Rate in the City of Boston

Type	2009	2010	2011	2012	2013	2014	2015
Murders (per 100,000)	50 (8.0)	73 (11.3)	63 (10.1)	57 (9.0)	39 (6.1)	53 (8.1)	38 (5.7)
Rapes (per 100,000)	269 (43.1)	256 (39.7)	271 (43.6)	249 (39.5)	279 (43.3)	280 (42.8)	240 (36.1)
Robberies (per 100,000)	2,277 (364.8)	1,926 (299.0)	1,904 (306.4)	1,910 (302.9)	1,868 (290.2)	1,680 (256.7)	1,551 (233.1)
Assaults (per 100,000)	3,596 (576.1)	3,564 (553.4)	3,014 (485.1)	3,050 (483.6)	2,851 (442.8)	2,736 (418.1)	2,873 (431.9)
Burglaries (per 100,000)	2,955 (473.4)	3,587 (556.9)	3,482 (560.4)	3,325 (527.2)	3,096 (480.9)	2,680 (409.5)	2,357 (354.3)
Thefts (per 100,000)	15,507 (2484.2)	15,004 (2329.6)	14,064 (2263.4)	13,400 (2124.8)	13,147 (2042.1)	13,077 (1998.3)	11,772 (11769.5)
Auto Thefts (per 100,000)	2,287 (366.4)	2,037 (316.3)	1,899 (305.6)	1,624 (275.5)	1,610 (250.1)	1,512 (231.0)	1,279 (192.3)
Arson (per 100,000)	N/A						
Violent Crime (per 100,000)	6,192 (992.0)	5,819 (942.2)	5,252 (845.2)	5,266 (835.0)	5,037 (782.4)	4,749 (725.7)	4,702 (707.0)
Property Crime (per 100,000)	20,749 (3324.0)	20,628 (3340.1)	19,445 (3129.4)	18,349 (2909.5)	17,853 (2773.1)	17,269 (2638.9)	15,408 (2316.1)
Part 1 Crime Rate (per 100,000)	(4315.9)	(4282.3)	(3974.7)	(3744.6)	(3555.5)	(3364.5)	(3023.1)

Source: National Archive of Criminal Justice Data

## Table 5: 2014 Crime Rate in the 5-County Area

Type	Essex	Norfolk	Middlesex	Plymouth	Suffolk
Murders (per 100,000)	13 (1.7)	1 (0.2)	14 (0.9)	14 (3.0)	57 (7.4)
Rapes (per 100,000)	148 (19.4)	105 (16.0)	254 (16.2)	167 (36.3)	363 (47.4)
Robberies (per 100,000)	663 (86.9)	193 (29.4)	640 (40.8)	257 (36.3)	2,057 (268.7)
Assaults (per 100,000)	2,123 (278.4)	964 (146.7)	2,078 (132.4)	1,249 (271.1)	3,416 (446.2)
Burglaries (per 100,000)	2,067 (271.0)	1,517 (230.9)	3,523 (224.5)	1,542 (334.7)	3,184 (416.0)
Thefts (per 100,000)	9,487 (1244.0)	6,215 (945.8)	17,134 (1092.0)	5,428 (1178.3)	16,235 (2120.8)
Auto Thefts (per 100,000)	1,434 (188.0)	314 (47.8)	1,313 (83.7)	397 (86.2)	1,789 (233.7)
Arson (per 100,000)	36 (4.7)	27 (3.7)	63 (4.0)	40 (8.7)	5 (0.7)
Violent Crime (per 100,000)	2,947 (386.4)	1,263 (192.2)	2,987 (190.4)	1,687 (366.2)	5,893 (769.8)
Property Crime (per 100,000)	12,988 (1703.0)	8,343 (1269.6)	21,969 (1400.0)	7,367 (1599.2)	21,208 (2770.4)
Part 1 Crime Rate (per 100,000)	(2089.4)	(1461.8)	(1590.4)	(1965.4)	(3540.2)

Source: National Archive of Criminal Justice Data

## Table 6: Regional Price Parities by MSA

Principal City	All Items	Goods	Rents	Services
San Jose	124	109	207	109
New York	122	110	156	117
San Francisco	122	109	186	109
Washington D.C.	119	106	169	110
Los Angeles	118	105	165	107
<b>Boston</b>	<b>110</b>	<b>101</b>	<b>141</b>	<b>107</b>
Seattle	109	107	131	103
Baltimore	108	103	118	105
Miami	107	100	129	100
Riverside	107	102	117	105
Philadelphia	106	102	112	108
Denver	106	102	122	101
Chicago	105	102	116	102
Minneapolis	102	104	110	97
Portland	102	99	115	100
Houston	101	97	102	106
Dallas	100	98	102	102
Salt Lake City	100	96	104	103
Austin	100	97	115	94
Las Vegas	99	96	98	103
Orlando	98	97	105	94
Phoenix	97	98	97	96
Detroit	97	99	87	100
Atlanta	96	98	92	96
Raleigh	96	97	96	94
New Orleans	96	97	95	94
Pittsburgh	95	98	79	99
San Antonio	94	97	90	94
Nashville	94	97	88	94
Grand Rapids	94	97	87	93
Charlotte	94	97	86	94
Indianapolis	93	98	83	94
Columbus	93	97	84	94
Oklahoma City	92	97	79	94
Louisville	91	97	76	94

### 8.6 Information on the community with respect to cost of living data

The cost of living and doing business in Boston compares well to other major cities. Boston's cost of living is comparable to Seattle's and considerably lower than other coastal peers such as the Bay Area, New York, Los Angeles and Washington D.C.<sup>146</sup> According to KPMG's Total Tax Index, Boston ranks 23rd out of 51 international cities, ahead of Seattle. Those living within the city limits enjoy low residential property taxes, with the first \$230,000 exempt from tax and a rate of just \$10.59 per thousand dollars beyond the exemption. Boston's commercial property-tax rate is \$26.81 per thousand dollars of value.

For Massachusetts, business taxes are 8% of net income. The overall level of business taxation in Massachusetts is lower than in most other states, according to a study by Ernst & Young for the Council on State Taxation. Massachusetts sales tax rate is 6.25%; food, clothing, sales of periodicals, and admission sales are exempt. The income tax rate is 5.1% on both earned income and unearned income; certain capital gains are taxed at 12%.

Source: Bureau of Economic Analysis

Notes: Regional Price Parities reflect the cost of living relative to the United States average. Thus, the cost of living in Boston is 10% higher than the US average, with rents 41% above average, services 7% above average, and goods 1% above average.

## Question 9

*Please use your response as an opportunity to present any additional items and intangible considerations with respect to your state/province and community that Amazon should include in its analysis.*

### 9.1 Sustainability

Across the world, Boston is recognized for its commitment to sustainability and leadership in climate action. Boston has been recognized globally for [Greenovate](#) Boston Climate Action Plan, the first of its kind to incorporate smart-city design and community engagement into its framework for carbon reductions and adaptation.

Since 2013, Boston has consecutively been named the #1 most energy-efficient city in the U.S. by the American Council for an Energy-Efficiency Economy (ACEEE). Massachusetts has also been recognized by ACEEE as the #1 state in the country since 2012. Boston's two leading utilities, Eversource and National Grid, have also led in the first and second spots for ACEEE's most energy efficient utility.

The challenge of climate change cannot be addressed alone, and Boston is fostering leadership in climate change globally. In 2017, Boston will host Greenbuild, the world's largest conference and expo dedicated to green building. Its plenary speakers include Neil DeGrasse Tyson and President Bill Clinton. In 2018, Boston is also set to host an international climate summit. Mayor Walsh is co-chair of the Climate Mayors Network, comprised of more than 300 U.S. mayors, representing 62 million Americans, who are working together to strengthen local efforts for reducing greenhouse gas emissions and supporting efforts for binding federal and global-level policy-making. Mayor Walsh is currently the North American Co-Chair of the Steering Committee for C40 Cities Climate Leadership Group, a network of the world's megacities committed to addressing climate change.

### Boston's Climate Action Plan

This plan sets aggressive carbon reduction targets which include reducing greenhouse gas emissions by 25% by 2020 and achieving carbon-neutrality by 2050. Climate Ready Boston is taking a multilayered approach to climate preparedness. Strategies include:

1. Climate Projection Consensus: Ensure that decision-making in Boston is informed by the latest Boston-specific climate projections;
2. Prepared & Connected Communities: Support educated, connected communities in pursuing operational preparedness, adaptation planning, and emergency response;
3. Protected Shores: Reduce Boston's risk of coastal and riverine flooding through both nature-based ("green") and hard engineered ("gray") flood-protection systems;
4. Resilient Infrastructure: Prepare the infrastructural systems that support life in Boston to adapt to future climate conditions, and create new resilient systems; and
5. Adapted Buildings: Use regulatory, financial, and other tools to promote new and existing buildings that are climate-ready.

## 9.2 Smart Utilities Vision

In August 2017, Boston completed the Boston Smart Utilities Vision, a strategy to integrate information and communication technology (ICT), the Internet of Things (IoT), with energy and water technology to manage a district's assets. Boston's Smart Utilities Vision promotes utility coordination through the advanced planning of utility infrastructure placement and has set the Boston Smart Utility Standards to allow more efficient utility construction and expansion, reducing traffic and business disruptions and improving underground space planning.

The smart utility technologies that standards have been developed to support include:

1. Telecommunications Utilidor: A high capacity conduit system where all cable and internet providers lease space for their wires and fiber optics;
2. District Energy Microgrid: A central energy plant and set of underground pipes that carry hot and cold water to buildings; this substitutes for in-building boilers and chillers and provides electric power in the event of a larger-scale grid outage. This can include renewable power sources - solar photo voltaics (PV), battery storage and electric vehicle charging infrastructure;
3. Smart Traffic Management & Autonomous Vehicles: A series of motion sensors and traffic signals that communicate in order to improve traffic flow;
4. Smart LED Streetlights: Controls lighting brightness to reflect needs presented by other light levels;
5. Water Reuse: Captures and stores water in tanks for use in landscaping;
6. Green Infrastructure: Gardens and pavers that take the place of sidewalk space in order to allow rainwater to percolate into the ground.

The Smart Low Carbon District is uniquely positioned to drive the next generation of high-performance buildings, district energy systems and an intelligent electric grid. Smart Utility technologies should maximize on-site renewable resources, use the most efficient available technology for the thermal supply and set design standards to significantly drive download.

## 9.3 Fiber Connectivity

### We're connected

Boston is one of the most connected cities in the world. By 2022, all of our residents and businesses will be served by 1 gig of connection speed.

### We're competitive

We have six different residential service providers in Boston. We promote competition so that our residents have affordable options. Right now, 81.6% of households

subscribe to high speed Internet in the home—a number we expect to grow as the market gets more competitive.

### We want the best

We recognize that fiber is fast, so we embrace it. We now have 2,500 thousand miles of commercial fiber across the city, including 175 miles of city-owned conduit available for private use.

### We work quickly

Boston is among the fastest in the nation for permitting and deploying wireless infrastructure. We're working to get DAS and small cell antennas installed as efficiently as possible to extend the city's coverage.

The City of Boston has made high-quality broadband and wireless service a priority, and works every day to close the equity and access gaps in our community. Among significant strides achieved, the City has:

- Negotiated an agreement with Verizon to bring competitive fiber service to residents and businesses.
- Worked hard to promote competition, and soon most Boston residents will soon have a choice of two or three broadband providers.
- Created a program to allow wireless companies easy access to City-owned infrastructure to install wireless antenna equipment to improves coverage and network performance.
- Established a partnership between WiredScore and the Boston Planning and Development Agency to encourage developers to construct buildings that are ready to support competitive broadband options.
- Mapped City-owned conduit available for lease to reduce the time and cost of installing new fiber optic cables.
- Created a digital equity pilot grant program to fund nonprofit organizations that are working to get all Boston residents online, with the skills, equipment, and connectivity they need.
- Provided a significant financial contribution to the majority of financial support for Tech Goes Home, a local non-profit that works with thousands of Boston families each year to provide them with tech skills and discounted equipment.

Providers have made significant investments in business connectivity, too. For example, Verizon is investing more than \$300 million over the next 5 years to build a fiber network that will bring increased competition and choice for broadband and entertainment services to Boston, and to support the ongoing efforts to spur innovation and economic opportunity in all neighborhoods. This fiber-optic platform enables advanced solutions for consumers and

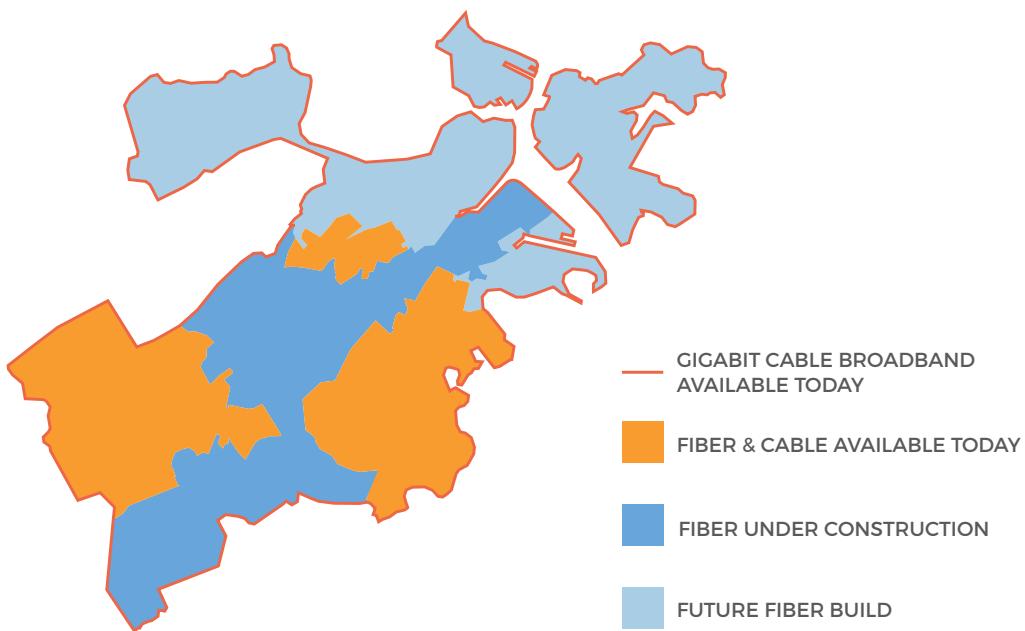
businesses alike including Fios internet (up to 1 Gig) and TV, next generation wireless service (currently 4G LTE is available city wide), enhanced Ethernet solutions and Smart Communities applications. Verizon is deploying a fiber-based small cell wireless network throughout the City as part of this investment. Verizon's fiber network offers a platform for current and future technology. This project is about rapidly transforming the city's network today in order to position Boston for the technologies of tomorrow.

#### 9.4 Smart City Technology

Boston is ranked #4 globally and #2 in the U.S. among cities leading with smart cities technology.<sup>147</sup> As a Smart City, Boston is dedicated to responding to the needs of residents in a way that promotes the tenets of democracy and enables all to partake in and benefit from city services. Boston also engages the private sector - Smart City technology vendors—to implement projects that holistically address the needs of the community.

## BOSTON'S RESIDENTIAL CONNECTIVITY PLAN

Boston is one of the most connected city's in the world. We have abundantly available commercial fiber. By 2022, all households will have multiple gigabit broadband options



**By 2022, all residents and businesses will be served by 1 gig.**



**Over 2,500 miles of commercial fiber across the city.**



**One of the fastest in the nation for permitting and deploying wireless infrastructure.**

## Testimonial from Elected Officials

Mr. Jeff Bezos  
Chief Executive Officer, Amazon, Inc.  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

We write to you today in enthusiastic support of the proposal by the Cities of Boston and Revere to become the home of Amazon's second North American headquarters. As elected representatives of the City of Boston, City of Revere, and the Commonwealth of Massachusetts, we know that this region can provide strong growth and sustained opportunity for Amazon. We are fully committed to supporting the Cities of Boston and Revere in these efforts, and will work together to ensure that we bring their proposal to fruition.

With the recent completion of a comprehensive, city-wide plan Boston, in conjunction with Revere, is positioned for innovative, collaborative, and equitable growth that is guided by strong civic and business leadership. The Cities of Boston and Revere recognize the potential to enhance the transit-oriented neighborhoods of East Boston and Beachmont with new housing, climate investments, and capital infusions. While we are proud that Boston and Revere offer a number of opportunities for Amazon's future development, it is clear that Suffolk Downs is a shovel-ready location that exceeds Amazon's site criteria. Suffolk Downs offers a blank canvas that will allow Amazon to operate exceptionally, while continuing to serve customers, innovate, and think big about long-term growth potential.

As the economic engine of Massachusetts and New England, the Greater Boston area is a hub for higher education, financial services, and the medical and research field. As home to an international airport, we are also the destination for millions of tourists and convention visitors each year. What all of this tells us is that Boston is a place people want to be. This proposal is unparalleled, and we thank you for the exciting opportunity. We, along with our partners in business, academia, and development, look forward to working with you.

Sincerely,

Congresswoman Katherine M. Clark U.S. House of Representatives Fifth District of Massachusetts	Councillor Jessica Ann Giannino Revere City Council At-Large	Councillor Arthur F. Guinasso Revere City Council Ward Three
Speaker Robert A. DeLeo Massachusetts House of Representatives Nineteenth Suffolk	Councillor Steven Morabito Revere City Council At-Large	Councillor Patrick M. Keefe, Jr. Revere City Council Ward Four
Senator Joseph Boncore Massachusetts Senate First Suffolk and Middlesex	Councillor Anthony T. Zambuto Revere City Council At-Large	Councillor John F. Powers Revere City Council Ward Five
Representative RoseLee Vincent Massachusetts House of Representatives Sixteenth Suffolk	Councillor Joanne McKenna Revere City Council Ward One	Councillor Charles J. Patch, Sr. Revere City Council Ward Six
Councillor Sal LaMattina Boston City Council District One	Councillor Ira Novoselsky Revere City Council Ward Two	

## Testimonials from Higher Educational Institutions in Greater Boston

Benjamin Franklin Institute of Technology

Berklee College of Music

Boston College

Boston University

Bunker Hill Community College

Emerson College

Emmanuel College

Harvard University

Massachusetts Institute of Technology

Medical Academic and Scientific Community Organization

Northeastern University

Simmons College

Suffolk University

University of Massachusetts Boston

Wentworth Institute of Technology

**Office of the President****617-588-1324****abenoit@bfit.edu**

October 3, 2017

Jeff Bezos, Chief Executive Officer  
Amazon Inc  
Amazon Corporate Office Headquarters  
1200 12<sup>th</sup> Avenue South Suite 1200  
Seattle WA 98144

Dear Mr. Bezos,

I am writing in enthusiastic support of Boston's proposal to host Amazon's second North American headquarters. As president of the Benjamin Franklin Institute of Technology (BFIT), a non-profit technical college that prepares Boston-area youth in a variety of high-growth technical fields, I know that BFIT, as well as our students and the diverse communities they call home, would welcome Amazon to our city.

BFIT's has been very pleased to bring students on field trips to the nearby facility of Amazon Robotics in North Reading, and our Office of Career Services & Industry Partnerships placed a 2017 graduate at that facility. When the college was creating a robotics and automation concentration in its electronics technology program, Amazon Robotics was an important consultant. We are grateful for this relationship and look forward to our continued work together.

Our results speak for themselves: Each year we graduate almost 200 students with associate degrees in areas such as computer technology, construction management, and biomedical technology, or with bachelor's degrees in electrical engineering, automotive management, health information technology, and mechanical engineering technology. Our graduation rate is three times the average for Massachusetts community colleges, and over 90 percent of our graduates are placed in jobs across these fields or go on to pursue further higher education. And we work closely with the Boston Public Schools to ensure that high school students who might not otherwise have access to college-level course work can earn up to a full-year of credit toward a degree through BFIT's dual enrollment program.

What sets BFIT apart from other colleges, however, is the same thing that sets Boston apart from other cities: the commitment to realizing the vast potential of the people we serve. BFIT focuses on educating young people who have been left behind in an economy that requires a highly skilled and educated workforce. More than 70 percent of our students identify as people of color, and many come from resilient urban communities that possess immense untapped potential and talent. BFIT provides the resources and opportunities for these students to thrive.

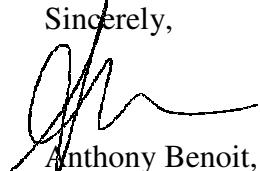
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A Benoit to J Bezos

Page 2 of 2

Boston's business, civic, and educational culture is deeply rich in diversity, opportunity, and potential with people coming from around the world to participate in this culture. Moreover, Boston and BFIT share the belief that all people should share in the progress and prosperity of this age of innovation, and that poverty, race, or geography should not be a barrier to education and success. The talent and energy of Boston make this a uniquely excellent setting for Amazon to continue to grow and thrive.

Thank you for your time, and I wish you the best in your search.

Sincerely,  
  
Anthony Benoit,  
President



Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

September 29, 2017

Dear Mr. Bezos,

I am writing this letter in enthusiastic support of the City of Boston's bid to become the host of Amazon's second headquarters in North America.

As an immigrant, an entrepreneur, and now Vice President for Innovation and Strategy at the world's largest college for contemporary music, dance and theater, I can attest that there is simply no better location for Amazon to locate its second hub for inspiration and world-changing innovation than Boston.

An often overlooked fact about Boston is that – besides the world class engineers, business managers, political thinkers, medical experts, architects and legal minds at universities such as MIT, Harvard or Boston University – this amazing city also attracts each year some 11,000 of the world's leading creative minds at colleges such as Berklee, Emerson and MassArt.

It is precisely the unique mix of technology and art, business and inspiration, pragmatism and ambition, local and global, emotion and reason, grit and compassion, discipline and creativity, certainty and surprise that make Boston the natural second home of a company that, in my opinion, shares these same attributes.

At Berklee, music is not just an artform but also a platform for creative problem solving, innovation and entrepreneurialism. We believe that learning to think like a musician – to collaborate, listen, sense, synthesize, perform, improvise and emote – is a better success framework for today's ever changing business, technological and social environment than traditional corporate management thinking.

We are hoping that Amazon will recognize the unique attributes and advantages that our colleges and city present and make Boston the home of its second headquarters.

Thank you for your kind consideration.

A handwritten signature in black ink, appearing to read "Panos A. Panay".

Panos A. Panay  
Vice President, Innovation and Strategy  
Managing Director, Institute for Creative Entrepreneurship



## BOSTON COLLEGE

OFFICE OF THE PRESIDENT

September 28, 2017

Mr. Jeff Bezos  
Amazon  
Office of Economic Development  
c/o Site Manager Golden  
2121 7<sup>th</sup> Avenue  
Seattle, WA 98121

Dear Mr. Bezos:

I write to offer my endorsement of Boston as a superb location for Amazon's second corporate headquarters. I have served as the president of Boston College for more than two decades, and I can affirm that this area and its residents are vibrant, generous, and resourceful.

As the higher education capital of the world and full of college students, Boston possesses tremendous assets and offers wonderful possibilities for Amazon. It attracts and retains thousands of college students who are intelligent, creative, and committed to helping make our world a better place. They come from diverse backgrounds and bring global perspectives to contemporary issues. Many of them have earned degrees in the humanities, management, computer science, accounting, health sciences, and communications; and they have become adept in problem solving, analytics, project management, and building relationships.

Since its founding in 1863, Boston College has received so much from Boston, and our graduates continue to bring to the wider community the benefits of the 470 year-old-Jesuit religious and educational heritage. It stresses the value of liberal arts education, especially in the development of self-knowledge, critical thinking, communication skills, and personal ethics. BC also encourages engagement with wider society and strives to be a place where people from varying backgrounds, experiences, and talents come together to grow as human beings, teach, research, inquire, learn, debate, sometimes disagree, and do so respectfully.

I am confident that Amazon would find a welcoming culture and talented employees in Boston, and I hope you choose it for your second headquarters.

Sincerely,

*William P. Leahy, SJ.*  
William P. Leahy, SJ  
President

Boston University Office of the President

Dr. Robert A. Brown  
President  
One Silber Way  
Boston, Massachusetts 02215  
T 617-353-2200 F 617-353-3278



September 29, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos:

On behalf of Boston University, I am pleased to support Mayor Martin J. Walsh as he leads the City of Boston's bid to become home to Amazon's second corporate headquarters. Beyond bearing the name of our host city, Boston University also shares the City of Boston's commitment to promoting innovation, diversity, and collaboration—values that have ensured Amazon's own unprecedented level of success and impact.

The University's third president once described Boston University as "in the heart of the city, in service to the city." From our founding in 1839 through our growth into the largest university in Boston, the fourth-largest private not-for-profit university in the country, and the newest member of the Association of American Universities (AAU), Boston University has stayed true to its commitment to pursue research, scholarship, artistic creation, and professional practice in service to the community—a commitment that has global reach. Amazon's membership in our community and in Boston's innovation ecosystem would bring new opportunities for academic and industry partnerships and valuable employment prospects for Boston University graduates, especially from our schools of Engineering, Business, and Law.

Boston University is a world-class higher education research institution, which received \$400.7 million in research grant funding in FY2017. Research conducted here addresses some of the greatest challenges facing humanity and catalyzes economic development in our immediate communities and around the world. Boston University is the fourth largest private university in the country, with almost 10,000 graduates in 2017 (over 4,100 undergraduates and 5,600 graduates). Our College of Engineering is at the core of our STEM efforts. We

Mr. Jeff Bezos  
September 29, 2017  
Page Two

graduate approximately 400 BS-level engineers per year, as well as 600 graduates in computer science and 1,400 in business, many of whom specialize in information technology. We believe we can be a major partner with Amazon in helping supply the high-quality workforce needed to succeed.

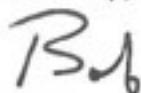
Interdisciplinary research is a critical component of our institutional research portfolio. Another example of our commitment is our Rafik B. Hariri Institute for Computing and Computational Science & Engineering. Institute faculty are drawn from across the University and focus on developing and applying advanced computational methodologies in areas such as big data, cybersecurity, and cloud computing. With its research already well supported through external funding and corporate partnerships, the Hariri Institute would be a natural, well-matched academic research partner for Amazon's HQ2.

We strive to foster a creative, entrepreneurial, problem-solving mindset in our students. In support of this goal, we're preparing to launch Innovate@BU, an initiative that will help our undergraduates acquire the habits of mind (for example, creativity and problem-solving) as well as specific technical skills needed to quickly translate their ideas into products, technologies, and methodologies. Showcased in a new public-facing innovation lab, Innovate@BU's BUild Lab will be a professionally staffed student innovation hub, a gateway for the Boston business community, and a counterpart to our existing large prototyping and makerspace, the Engineering Product Innovation Center (EPIC).

These are just few recent examples of the initiatives that have secured top rankings for BU's schools and colleges, and the 11th spot on the Times Higher Education's 2016 Global University Employability Rankings.

Again, I enthusiastically endorse Mayor Walsh and the City of Boston's bid in your HQ2 site selection process, and thank you for your consideration.

Sincerely,



Robert A. Brown

**OFFICE OF THE PRESIDENT**

October 5, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

I am writing today in support of Boston's efforts to welcome Amazon's second headquarters to the City. The Greater Boston area is unique as a hub of national and international business, a center of finance, health care and education, and boasts a topnotch distribution and transportation system. Adding to those positive features is the abundance of human talents that Amazon could leverage for a vibrant workforce. We have in our midst not only the expert talents of scientists and business leaders, but also the combined power of community and two-year colleges, as well as some of the world's best universities, in workforce development and training.

Bunker Hill Community College is the largest of 15 community colleges in Massachusetts. Located in Charlestown, and directly on the MBTA Orange Line of the public transit system, we educate 20,000 students annually in the Metro Boston area. Together with our Greater Boston community colleges (Northern Essex, North Shore, Mass Bay, Middlesex and Roxbury), we train a diverse workforce of over 76,000 individuals. Our students live and work within an eight-mile radius of our colleges, leverage public transportation, and remain permanent residents of our neighborhoods once they graduate. They make up a stable and agile workforce that can ably support any expanding business venture. We think you will find the density of public colleges in the Greater Boston area an important source of sustainability in considering the site of your headquarters.

As you consider factors such as access to labor and services, ease of transportation, and the cost of doing business, I know you will find Boston to be a very appealing location for your second headquarters. We look forward to the selection process, and hope this information about our community colleges is of help in your decision-making.

Sincerely,

A handwritten signature in black ink that reads 'Pam Eddinger'.

Pam Y. Eddinger, Ph.D.  
President

**CHARLESTOWN CAMPUS**

250 New Rutherford Avenue • Boston, Massachusetts 02129-2925  
Phone: 617-228-2000 TTY: 617-242-2365

**CHELSEA CAMPUS**

70 Everett Avenue • Chelsea, Massachusetts 02150-2917  
Phone: 617-228-2101 TTY: 617-884-3293  
New location as of January 2017

**ADDITIONAL LOCATIONS**

Chinatown • East Boston • Everett • Malden • South End • Quincy  
[bhcc.edu](http://bhcc.edu)



Office of the President  
120 Boylston Street  
Boston, MA 02116

+1 617 824 8525  
+1 617 824 8511 fax  
[emerson.edu](mailto:emerson.edu)

October 5, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos:

On behalf of Emerson College, I write to support the City of Boston's application to become the next location for Amazon's Headquarters. Emerson College, located in the heart of downtown Boston, Los Angeles and the Netherlands is a vibrant institution where students from around the world convene to become the next global innovators in communication and the arts.

Welcoming Amazon to Boston will create tremendous opportunities for collaboration and engagement with the city and its 35 institutions of higher education. In particular, Amazon would have access to the most talented innovators, problem solvers, and entrepreneurs in the country.

Emerson students and faculty embody an intellectually creative spirit that is most evident in several initiatives at the College. Our Business of Creative Enterprise (BCE) program, launched in the fall of 2016, is the first of its kind in the country. Emerson's campus culture is one that is creative, collaborative, and innovative. These qualities lend themselves naturally to supporting the transition into business disciplines, which contribute to the emerging creative economy. Another program, Emerson Experience in Entrepreneurship, is a yearlong immersion in which students gain the knowledge to build and launch new ventures, earning a minor in entrepreneurial studies. Emerson Launch, our start up incubator initiative, provides students the opportunity to become entrepreneurs who develop ideas that move our society forward.

In our Engagement Lab, students focus on the development of gaming, technology and new media. The Lab is supported by the John S. and James L. Knight Foundation and the MacArthur Foundation. Students have also worked with city organizations on youth and academic engagement programs through Emerson's Elma Lewis Center for Civic Engagement, Learning and Research. Most recently, the College partnered with the City of Boston on the implementation of a Creative Industries Development Program to promote employment opportunities in the area.

The City of Boston is a vibrant and diverse community that balances a wonderfully rich history with an openness toward innovation and new ideas. I am confident that this city, and its institutions of higher education, will serve as a strong foundation for Amazon's next home.

If you have questions or would like additional information, please feel free to contact me directly at [lee\\_pelton@emerson.edu](mailto:lee_pelton@emerson.edu) or 617-824-8525.

Sincerely,

A handwritten signature in black ink that reads "M. Lee Pelton".

M. Lee Pelton  
President



## EMMANUEL COLLEGE

SISTER JANET EISNER, SND  
PRESIDENT

October 5, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

Emmanuel College enthusiastically supports the City of Boston's bid to become the home of Amazon's second North American corporate headquarters.

The Boston area represents an extraordinary nexus of talent, resources and innovation. From its premier institutions of higher learning to its financial sector to its thriving startup culture, Boston is a magnet for the best minds and a force for progress on the global stage.

For nearly 100 years, Emmanuel College has played an integral part in Boston's evolution. Combining a values-based liberal arts and sciences education with real-world learning experiences, the College has cultivated a workforce of exceptional acumen, skill and social consciousness.

I hope you will consider the enduring benefits that our city and Commonwealth can offer to Amazon as it continues its leadership in a fast-changing marketplace.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Sister Janet Eisner, SND".

Sister Janet Eisner, SND  
President

## HARVARD UNIVERSITY

OFFICE OF THE PRESIDENT

MASSACHUSETTS HALL  
CAMBRIDGE, MASSACHUSETTS 02138  
(617) 495-1502

October 6, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos:

I write in support of Greater Boston's vision to be a home for Amazon's second corporate headquarters. Harvard University and our outstanding peers in higher education throughout the region are an essential part of the innovation and economic landscape of the country and of Massachusetts. Our universities provide the intellectual infrastructure—the ideas, solutions, technologies, and talent that fuel growth, and attract startups and established companies—that makes our region a competitive place for Amazon's next venture, and for the future generations of thinkers and creators who will live, study, and work here.

At Harvard, we benefit from the collaborative intellectual power of our neighbors in one of the densest and most vibrant research and education clusters in the world. The academic energy and expertise of colleges and universities and their related research endeavors attract talent from across the globe, fuel the region's knowledge-based economy, and result in discoveries that have an impact on the lives of millions.

The ways in which we learn from one another and collaborate through both formal and informal partnerships are limitless. To cite a few examples: Harvard's new spaces in Allston will host some of the most cutting-edge research and teaching facilities for science and engineering in the country and will be situated in an innovation and entrepreneurship cluster along with the Harvard Innovation Labs, Harvard Business School, and an emerging enterprise research campus that will draw academic and commercial partners together; Harvard and the Massachusetts Institute of Technology together formed the Broad Institute, which integrates disciplines like biology, chemistry, mathematics, computation, and engineering with medical science and clinical research from Harvard-affiliated hospitals to advance our understanding of complex challenges in biological systems and the human genome; and Harvard is proud that, as of July 2017, its research enterprises have translated into more than 700 active licenses with 390 industry partners, and our intellectual property has resulted in the launch of more than 100 startups and the issuance of more than 2,500 patents.

A well-educated work force and the promising pipeline of exceptional, highly-skilled, and nimble labor are also particular hallmarks of our region. In the last ten years at our university alone, the Harvard John A. Paulson School of Engineering and Applied Sciences has experienced explosive growth, tripling the number of concentrators in applied mathematics, computer science, and biomedical, electrical, and mechanical engineering. Students in our

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Page 2 of 2

October 6, 2017

broad range of social science and humanities programs appreciate ingenuity as well as interpretation—and bring critical analytical and communications skills to sectors like public service, science, business, medicine, and the arts. Of the estimated 50,300 Harvard alumni currently living in Massachusetts, 2,430 are senior leaders or founders of Massachusetts companies. Many more lead and interact with companies, non-profits, and government institutions across the globe.

While Harvard's reach and impact as a global research university is significant, we are proud to serve alongside our institutional peers in Greater Boston as an important economic anchor, providing stability to the region through employment and local spending and reinforced by the highest bond ratings from credit rating agencies. We are also fortunate to benefit from strong relationships within our vibrant host communities; our collaborations around economic and workforce development, arts and wellness offerings, mentoring, green spaces, and public education programming have helped shape and enhance our shared civic and cultural activity.

Amazon, and its commitment to service, innovation, and discovery, would be a welcome addition to our remarkable community here in Greater Boston. I hope you will join us.

Best regards,



Drew Gilpin Faust



MASSACHUSETTS INSTITUTE OF TECHNOLOGY

L. Rafael Reif, President

77 Massachusetts Avenue, Building 3-208  
Cambridge, Massachusetts 02139-4307 U.S.A.  
Phone 1-617-253-0148

October 10, 2017

Mr. Jeffrey P. Bezos  
Chairman and Chief Executive Officer  
Amazon.Com, Inc.  
410 Terry Avenue North  
Seattle, WA 98109-5210

Dear Jeff:

On behalf of the Massachusetts Institute of Technology (MIT), we are extremely excited about the prospect of Amazon coming to Massachusetts. The greater Boston region is an ideal location for Amazon to create its second corporate headquarters, with tremendous opportunities for technological advancement. The region is home to a vast array of world-class universities, hospitals, and technology companies with a deep culture of collaboration. These include not only MIT and Harvard but also over 50 other public and private universities and strong community colleges that are home to approximately 250,000 students. Across all of Massachusetts, our colleges and universities graduate over 118,000 each year. You will find a highly talented workforce here.

MIT has a long-standing tradition of working productively with industry, and we look forward to strengthening our existing relationships with Amazon. We are actively engaged in shaping a regional environment where innovators and companies succeed in translating inventions from the laboratory to commercial products, faster and more effectively. We are rapidly advancing robotics, artificial intelligence, the internet of things, and other areas of technology that are important to Amazon. I have provided a brief summary of some of MIT's research programs and collaborations that may be of interest in thinking about future collaborations between Amazon and MIT.

MIT is also committed to extending our already robust K-12 educational programs. Working with Cambridge, Boston, and other local communities, we aim to increase curiosity and inspire a new pool of STEM talent for the future. Through our programs at the MIT Edgerton Center (over 150 on-campus workshops touching about 3,000 students annually), the Cambridge Science Festival (over 250 events and 100,000 visitors each spring), and Boston STEM Week (reaching 37 middle schools and 6,500 students this fall), we offer hands-on science and engineering experiences to inspire our communities. MIT embraces diversity and inclusiveness, and true to our values, we seek to provide access and opportunities for all. Through MITx and edX, MIT is expanding online learning.

I believe that your search presents Amazon and the region a unique opportunity to build a more exciting future together. MIT wants to play a major role. My colleagues and I are available to provide any additional information that may be helpful as you move forward with the selection process, and we welcome the occasion to talk with you about the tremendous opportunities that lie before us.

Sincerely,

L. Rafael Reif

LRR/rce



MEDICAL ACADEMIC AND SCIENTIFIC COMMUNITY ORGANIZATION, INC.

PEOPLE | PLACES | PLANS | FUTURE

**Member Institutions**

Beth Israel Deaconess Medical Center  
Boston Children's Hospital  
Brigham and Women's Hospital  
Dana-Farber Cancer Institute  
Emmanuel College  
Harvard  
Harvard Medical School  
Harvard School of Dental Medicine  
Harvard T.H. Chan School of Public Health  
Isabella Stewart Gardner Museum  
Joslin Diabetes Center  
Judge Baker Children's Center  
Massachusetts College of Art and Design  
Massachusetts College of Pharmacy and Health Sciences University  
Massachusetts Department of Mental Health  
Simmons College  
Temple Israel  
Wentworth Institute of Technology  
Wheelock College  
The Winsor School

**Associate Members**

Massachusetts Eye and Ear Infirmary  
Merck Research Laboratories

**October 2, 2017**

**Mr. Jeff Bezos**  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South  
Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

MASCO is pleased to stand in support of the City of Boston's application to host Amazon's second campus. Among the assets that Boston has to offer Amazon include the powerhouse of institutions involved in STEM that are represented in the Longwood Medical and Academic Area of Boston (LMA).

MASCO members and associate members include some of the most prestigious medical, academic, research, and cultural institutions in the country, if not globally. Together they employ over 46,000 individuals, educate over 21,000 students, and treat over 2.6 million patients annually. The research enterprise in the LMA employs over 10,000 researchers. We have up to 5 million visitors annually to cultural, religious, academic and medical institutions.

MASCO medical members include Beth Israel Deaconess Medical Center, Brigham and Women's Hospital, Boston Children's Hospital, Dana Farber Cancer Institute and the Joslin Diabetes Center. Each of them hosts significant STEM research endeavors. Our academic and research members include Merck Boston Research Laboratories, Harvard Medical School, Harvard T. H. Chan School of Public Health, and Harvard School of Dental Medicine. College members include Emmanuel, Simmons, MassArt, Massachusetts College of Pharmacy and Allied Health Sciences University, Wentworth Institute of Technology, and Wheelock College. Cultural and religious organizations include the Isabella Stewart Gardner Museum and Temple Israel, the Boston area's largest reform temple.

The Longwood Medical and Academic Area represents a vibrant scientific, cultural, and academic community, which is not only an integral part of the Boston area's cutting edge innovation community, it would also be inviting to the Amazon culture and workforce.

Our colleges collectively educate 17% of Boston's students enrolled in four-year colleges and universities, larger than University of Massachusetts Boston or Boston College. Their students, faculty and alumni provide an abundant supply of the creative and intellectual firepower so essential to support an innovation-based

economy. Close to 60% of their students are drawn from across the Commonwealth; they also matriculate significant international student populations.

More than half of their alumni choose to remain in Massachusetts after graduation working in such critical economic sectors as health care, the creative economy and high tech industries which employ science, technology, engineering and math (STEM) specialists. From the critical thinking, math and science skills enabled through strong liberal arts educational programs at Emmanuel and Simmons Colleges, to the array of science, engineering, and biotechnology degrees offered by Wentworth Institute of Technology, and the industrial design and creative arts degrees afforded by MassArt – MASCO members' undergraduate colleges are training the Commonwealth's workforce of the future.

All of our members have a long history of innovation and partnerships with the community, from school based partnerships to placement of students and faculty in community intern and volunteer opportunities at over 1,300 sites throughout the Commonwealth.

MASCO – Medical Academic and Scientific Community Organization, Inc. – is a charitable corporation established in 1972 by its member institutions to plan, develop, and enhance the Longwood Medical and Academic Area (LMA) for the benefit of the general public and its members and to create and implement programs that assist the institutions and individuals in the LMA.

We would be pleased to welcome Amazon to our city and community.

Sincerely,

*Marilyn Swartz-Lloyd (sh)*

Marilyn Swartz-Lloyd  
President and Chief Executive Officer



JOSEPH E. AOOUN, PHD  
PRESIDENT

COLUMBUS PLACE, SUITE 600  
NORTHEASTERN UNIVERSITY  
360 HUNTINGTON AVENUE  
BOSTON, MASSACHUSETTS 02115

617.373.2101  
617.373.5915 FAX  
PRESIDENTAOOUN@NEU.EDU

September 26, 2017

Mr. Jeff Bezos  
Founder, Chairman, and Chief Executive Officer  
Amazon.com, Inc.  
1200 Twelfth Avenue South, Suite 1200  
Seattle, Washington 98144

Dear Mr. Bezos,

As you prepare to review proposals in connection with locating Amazon HQ2, I strongly encourage you to select the Boston metropolitan region. Known for its flourishing hi-tech community, leading medical and scientific institutions, and world-class research universities, Boston is a global city characterized by an unrivaled innovation ecosystem. With ready access to talent, venture capital, and guided by a singular entrepreneurial ethos, Boston is poised to further help Amazon shape the digital economy of the future.

As the recognized global leader in experiential learning, Northeastern University today is the only university with campuses in both Boston and Seattle. Situated directly across from Amazon's Seattle headquarters in South Lake Union, Northeastern-Seattle has tailored its educational and research strengths to be responsive to the needs of Seattle's employers. Through the university's signature ALIGN program, piloted in Seattle, more than 600 professionals seeking to transition into jobs in high-growth industries are currently pursuing accelerated master's degrees in cybersecurity, computer science, data analytics, project management, and engineering.

Moreover, as part of Northeastern's renowned cooperative education program—which integrates real-world professional experience with classroom learning—more than 500 Northeastern students have completed full-time six-month internships at Amazon during the last five years. In Boston and in Seattle, Northeastern is helping to produce a pipeline of talent for firms like Amazon, minting some 5,000 computer science, engineering, business administration, and science graduates annually. Further, an additional three times that number comprise the annual pool of potential co-op placements.

Mr. Jeff Bezos  
September 26, 2017  
Page Two

In a manner distinct among educational institutions, a priority of Northeastern's use-inspired research mission is to work closely and intentionally with employers to both advance their employees' educational opportunities and to develop the real-time business solutions that are responsive to their customer needs. For example, we have co-located our research faculty side-by-side with the research and development arms of industry and government partners at the Kostas Research Institute on our Burlington, Massachusetts, innovation campus.

Situated along the Route 128 hi-tech corridor, this interdisciplinary research center is already producing technological breakthroughs in advanced manufacturing, materials science, and the cybersecurity of drones.

Should Amazon select Boston, Northeastern stands ready to expand its suite of partnerships and close working relationships with the company. Today, some 400 Amazon employees hold degrees from Northeastern, including many senior executives. Several Amazon executives also serve as part-time Northeastern-Seattle faculty, and Northeastern was one of only a handful of institutions to be selected to offer an industry bootcamp as a pilot member of the Amazon Web Services Academy.

Finally, the characteristics you seek in Amazon HQ2's prospective host city are ones Boston is known for worldwide:

- The innovation and entrepreneurship ecosystem provides a wide breadth of support for the next generation of innovators and continues to attract budding startups.
- The city is a leader in sustainability and combating the impacts of climate change. Boston was the first city in the nation to require private developers to meet the standards of the LEED rating system. Northeastern has five LEED-certified buildings on its Boston campus alone.
- Among Boston's universities and colleges, you will find thousands of students and researchers from around the world working tirelessly toward solving global societal challenges to make our communities more livable.

Thank you for your consideration of Boston's siting proposal. I look forward to this and other opportunities to strengthen and grow the Northeastern-Amazon partnership in the months and years ahead.

Sincerely,



Joseph E. Aoun  
President



# SIMMONS

Office of the President  
300 The Fenway, Boston, Massachusetts 02115-5898  
[www.simmons.edu](http://www.simmons.edu)

T 617-521-2073  
F 617-521-3065

October 2, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

In the mid 19<sup>th</sup> century, Boston clothier John Simmons was the first to pre-make men's suits in common sizes. His innovation, off-the-rack suits, coincided with the build-out of the U.S. railroad system, and Mr. Simmons soon thereafter made his fortune.

As he reflected upon his success, Mr. Simmons recognized an inequity. While he owed his fortune to the work of the female seamstresses who worked for him, they were being denied the right to determine their own sustainable careers. And so, decades before American women were granted the right to vote, John Simmons carried out his revolutionary idea to found an institution of higher education for women that would prepare them for independent livelihoods and meaningful lives.

Since 1899, Simmons College has provided women undergraduates with an innovative and practical education that combines liberal arts and sciences with real-world experience in the vision of our founder. Today, Simmons is a well-regarded private institution that has prepared tens of thousands of people to lead change that impacts families, communities, and the world. In addition, Simmons is now known as the preeminent authority on women's leadership, with well-established expertise in the development and success of women and girls. Over the years we have added exceptional masters and doctoral programs for men and women, including many offerings fully online.

Like Boston itself, we are proud of our history and the impact we've had on American society. Our students, staff and faculty are deeply involved in our global and local communities. Last academic year more than 1,100 of our students performed unpaid internships across the city as part of their academic curriculum in a variety of industries. In addition, 30% of our students took part in service learning activities, ultimately contributing nearly \$10 million in services to the citizens of Boston.

Our student-scholars are focused and driven, taking advantage of our exceptional faculty, innovative curriculum, and robust support services while they pursue careers in industries that, like Amazon, continue to shape the world. Notable majors include computer science, data science and analytics, information technology, web design and development, and dozens more.

In addition to our relevant academic subject matter, Simmons exposes our students to real-world experience by partnering with well-established companies like Merck, Novartis, EMC, and United Technologies. Our curriculum encourages interdisciplinary study, so students can combine their skills, passion and interests with such areas of study as Entrepreneurship and Principled Leadership, Arts Administration, and Chemistry Management.

Mr. Bezos, there is no place on Earth like the City of Boston. The resiliency and character of our people are reflected in our unique, prideful community. At Simmons, the only women's college in Boston, you will find talented, intelligent young people, who value hard work and are eager to contribute to their employer's success.

Boston has successfully transitioned from an historic American city into a dynamic, modern community of educators, innovators, and experts. We continue to harness the skills and talents of our people, and leaders have followed the legacy of our own John Simmons to make remarkable and lasting innovations that have made the world a better place. I know your company would continue to thrive here in Boston, and all of us at Simmons stand ready to contribute in any way we can.

Sincerely,



Helen Drinan  
President



Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

September 28, 2017

Dear Mr. Bezos,

On behalf of Suffolk University, we wanted to convey our excitement and strong support for the bid being submitted by the city of Boston for the siting of a new Amazon headquarters in the city. Suffolk has called Boston and its vibrant downtown area home for more than 111 years, and we cannot envision a better location for your new venture, especially given the criteria outlined in your request for proposals.

In addition to the outstanding intellectual capital and skilled labor supply provided by our world-famous institutes of higher education, the physical characteristics of the city could provide a perfect fit for Amazon activities. These include at least one shovel-ready site, airport proximity and ready access to water transportation. As you know, Boston is also one of the world's knowledge capitals, and it has a cultural environment and lifestyle that attracts people from across the globe. It also benefits from a mayor and city administration that are creating more workforce housing than at any time in recent history.

Allow us to share just a little bit about Boston's own Suffolk University. We are one of the nation's great urban universities, ranked as a tier one institution by *U.S. News and World Report*, with 7,500 students in the heart of the city and an alumni network of 80,000 that stretches across the globe. We are also a gateway to the world, with one of the highest percentages of international students in the nation, a campus in Madrid, and a global outlook that prepares students to compete and thrive in an increasingly interconnected economy.

Based on our own experience, we could not imagine a more vibrant location for Amazon's new headquarters. Much like Amazon, a Suffolk education comes without traditional boundaries. When Suffolk students step out of campus buildings they step into the heart of downtown Boston, with all of the energy, opportunity and possibilities that the city offers. Our urban campus is woven into the fabric of Boston, where students from around the world learn as much outside of the classroom as they learn in it. Programs and courses take full advantage of that vibrant location with an experiential approach that is at the heart of a Suffolk education.

Suffolk University is committed to playing an active role not only in helping to bring Amazon to Boston, but also in supporting the company once you choose Boston as your home. We have a long history of partnering with businesses and organizations throughout the city and region. Those strong relationships provide our students with exceptional and relevant experience while

they attend Suffolk, even as we provide a strong pipeline of talented and career-ready graduates into the area workforce.

Like our urban campus, our degree programs and course offerings also break through traditional boundaries. Interdisciplinary offerings reflect the complex world into which students graduate. Programs are designed to meet the evolving needs of industry and organizations. Students in the College of Arts & Sciences are rethinking the urban environment through the interdisciplinary Center for Urban Ecology and Sustainability. In our Sawyer Business School, undergraduates from across the University are launching and crowdfunding their own startup companies as part of a first-of-its-kind Entrepreneurship course that brings real-world business experience into the classroom. And our Law School is leading a new generation in reimagining the practice of law, with a focus on innovation in the delivery of legal services.

We would welcome working with you and your team in developing the type of specific training and educational programs that fit your workforce needs.

We stand ready to help you better understand the benefits that Amazon would reap by choosing Boston for this exciting venture, and we would welcome the opportunity to answer any questions.

We hope to welcome you one day as our new neighbor!

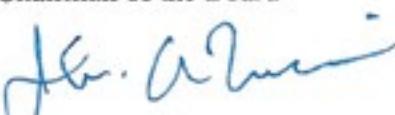
Sincerely,



Marisa J. Kelly  
Acting President



Robert C. Lamb, Jr.  
Chairman of the Board



John A. Nucci  
Senior Vice President for External Affairs

Cc: The Honorable Martin J. Walsh, Mayor of Boston  
Brian Golden, Executive Director, Boston Planning & Development Agency



UNIVERSITY OF MASSACHUSETTS BOSTON

**Office of the Chancellor**

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[www.umb.edu](http://www.umb.edu)

September 28, 2017

Mr. Jeff Bezos  
c/o Site Manager Golden  
2121 7th Avenue  
Seattle, WA 98121

Dear Mr. Bezos:

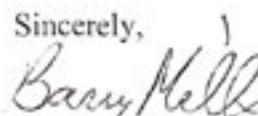
On behalf of the entire University of Massachusetts Boston, I am writing to convey our wholehearted support of the City of Boston's bid to host Amazon's new headquarters.

UMass Boston is the Greater Boston area's public research university, ranked in the top tier of national research universities by *U.S. News & World Report*. As such, we work closely with the city and many of the leading companies and organizations. Through our research and advanced educational offerings, the university makes crucial contributions to the thriving Massachusetts life sciences and healthcare industries, such as our 15-year partnership with Dana-Farber/Harvard Cancer Center to address health disparities and agreements with Sanofi/Genzyme, Oracle, and Harvard Pilgrim Health Care to further STEM and nursing education.

As an urban university founded to support the City of Boston, our efforts span a broad range of efforts. The research of our faculty in our School for the Environment and Sustainable Solutions Lab is the basis of the city's long-term planning to address climate change and sea-level rise. Our work to support primary and secondary public education has led to dramatic increases in college graduation rates through Success Boston, and our Broadening Advanced Technological Education Connections (BATEC) has become a national leader in furthering technology education.

UMass Boston feeds and helps to drive Boston's economic engine, supplying a steady talent stream of well-educated, diverse graduates eager to roll up their sleeves and get to work. Each year UMass Boston awards 4,100 degrees to undergraduate and graduate students; the vast majority, 88 percent, enter the workforce in Massachusetts. And as a majority minority university, our graduates diversify Boston's workforce in important areas such as healthcare and nursing, STEM fields, and entrepreneurship. In fact, students pursuing STEM degrees at UMass Boston are majority of color and female.

Fifty years ago our founders envisioned a public university that would "stand with the city." That commitment remains today as we continue to search for ways to support the city and its institutions and economic well-being. For this reason, we fully support the City of Boston's bid to be the future home of Amazon, and we would welcome the opportunity to explore how UMass Boston can support your future success here.

Sincerely,  
  
Barry Mills  
Interim Chancellor



**WENTWORTH**  
INSTITUTE OF TECHNOLOGY

PRESIDENT'S OFFICE

September 29, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporation  
Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Re: Amazon HQ2 RFP

Dear Mr. Bezos:

Greetings from Boston, Massachusetts, and Wentworth Institute of Technology.

On behalf of our outstanding university, I write to offer my full and unequivocal support of the City of Boston's application for locating the second Amazon North American headquarters in Boston.

Our students, faculty and staff members fully support Amazon's continued success, and look forward to welcoming you here.

Boston is a city on the move. The signs of economic progress in this home of American independence are everywhere. And like its host city, Wentworth has experienced dramatic growth and change over the last decade as we have added nine new undergraduate majors, including seven engineering majors, computer information systems, and applied mathematics and introduced master-level education with six new degrees.

Wentworth is a university offering a dynamic experiential education to its more than 4,000 students. Wentworth is in the heart of the Fenway neighborhood amid world-class hospitals, colleges and universities, art museums, and cultural attractions. This summer Wentworth began construction of a \$55 million multipurpose academic building for engineering, innovation and science – the first academic building to be built on our campus in the last 45 years. This stunning addition to the area will open in 2019.

I am proud to say that we have created an exceptional learning environment at Wentworth. Our students—coming from 38 states and 60 countries—apply classroom theory in state-of-the-art classrooms, labs, and studios. By collaborating with students from different majors and disparate backgrounds, they learn about working in career settings.

Wentworth students participate in two semester-long, co-operative learning experiences with employers where they gain valuable work experiences that they bring back to their classroom learning. Wentworth is proud of its impressive 98% placement rate of its graduates within six

Mr. Jeff Bezos, Chief Executive Officer  
Amazon Corporation  
September 29, 2017  
Page 2

months of graduation with employers or within graduate school. Wentworth works with over 100 employers to place its students in co-ops and in jobs. 50% of our undergraduate students are offered jobs following their successful co-op experiences. Our students access proven employment tools through our Center for Cooperative Education and Career Services. Wentworth provides a highly-educated workforce to many companies in the greater Boston area and beyond thus supporting and driving economic growth in the region.

Wentworth is celebrating its new status in Massachusetts as a full-fledged, official university, 113 years after the Institute was founded. We earned this distinction in July 2017 after establishing graduate programs in four professional fields of study: design, management, engineering, and science. These master's programs were added to our 17 bachelor's degree programs in areas such as applied mathematics, architecture, business management, computer science, computer networking, construction management, design, and engineering.

Wentworth is committed to the city's young people, as well. Our Boston Pipeline Program works with Boston schools to recruit and graduate a diverse population of urban students.

We foster entrepreneurship and innovation through Accelerate, Wentworth Innovation + Entrepreneurship Center, which houses interdisciplinary, extracurricular programs that aim to build innovative thinking and entrepreneurial confidence in students. Our Accelerate graduates have created companies that are changing the marketplace, including construction risk management business Pillar Technologies, which recently secured \$2.75 million in seed funding, and Gentoo, creators of a lightweight treatment vest for outpatients that is provided to hospitals around the country.

I offer Wentworth's whole-hearted support in concert with the City of Boston, and I look forward to welcoming you to Massachusetts.

Best regards,

*Zorica Pantić'*

Zorica Pantić, EE, Ph.D.  
President

## Testimonials from Boston-based Businesses

Cambridge Innovation Center (CIC)

Carbonite

Catalant

Cybereason

DraftKings

General Electric

MassChallenge

MassRobotics

Reebok

The Boston Foundation

Trillium Brewing Company

Venture Café Foundation

Vertex

Alliance for Business Leadership

Greater Boston Chamber of Commerce

Mass Technology Leadership Council

New England Venture Capital Association



October 4, 2017

Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South  
Suite 1200  
Seattle, WA 98144  
Dear Jeff,

We met last year at your Sept. 12th, 2016 private gathering in Boston of robotics folks. I am the Founder and CEO of Cambridge Innovation Center, and the Chair of MassRobotics. You also know my father, Richard Rowe, from years past. My company runs the world's largest startup facility, with over 1000 startup companies housed in our facilities in Greater Boston.

I'm writing to encourage you to consider Boston for Amazon's HQ2 location.

When Amazon decided for the first time to place software engineers outside Seattle, the very first place you decided to place them, in the entire country, was our Cambridge Innovation Center facility at One Broadway, in Cambridge Massachusetts. You started with about 3 people and grew quickly to 80 before moving next door to our second building with a much larger team.

I suspect you came here for the same reason that most major technology companies did. Between MIT, Harvard and the 60 other colleges and universities here, we have some of the world's strongest technology talent.

Our fastest-growing facility today is in downtown Boston, in the area once known for financial services firms. Boston has America's first public transit system, first public education system, and we were home to its first printing press. The telephone was invented around the corner from our 50 Milk St. facility in Boston, and the first telephone call was placed from there to the very building that today houses our shared wet lab facility for life sciences startups. The computer was invented here, as was the Internet. This is a very special area. I think you know that.

We started at the forefront of American invention, and we haven't slowed down. You have had a chance to experience this for yourselves with the acquisition of Kiva Systems, which became Amazon Robotics, and even more recently with your investment in Vesper, in Dec. 2016 via the Alexa Fund: a CIC Boston alum that invented ultra-small, low-cost, waterproof

microphones. Going forward, it is hard to imagine that the future of Amazon's businesses won't be tied deeply to technologies coming from Massachusetts.

Massachusetts is winning in a way that will be very difficult for any other place to replicate: we attract more of the brightest minds from the entire planet to our educational institutions than any other place. We have more Nobel Prize winners here than any other place, and over the last decade more venture capital per capita than any other state or country in the world.

Amazon's biggest challenge in making HQ2 a success will be finding 50,000 of the world's brightest minds. Those people are already here. We invite you to be our neighbor and to grow the next chapter of your story alongside us.

Warmest regards,



Tim Rowe  
Founder & CEO  
Cambridge Innovation Center

**CARBONITE**

2 Avenue de Lafayette  
Boston, MA 02111  
[carbonite.com](http://carbonite.com)

Mohamad Ali  
Chief Executive Officer  
Carbonite  
2 Avenue de Lafayette  
Boston, MA 02111  
[mali@carbonite.com](mailto:mali@carbonite.com)

October 3, 2017

Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South  
Suite 1200  
Seattle, WA 98144

Dear Jeff,

I am writing to encourage you to choose the Boston region for your second headquarters. I am the CEO of Carbonite, a “born in the cloud” data protection company, and serve on the boards of iRobot and the Massachusetts Technology Leadership Counsel – a group of over 500 tech companies. While there are many reasons to choose this region, one stands out – talent.

As you know better than most, data science and artificial intelligence (AI) are core skills for next generation companies, such as Amazon. My experience in this area spans both coasts, with degrees from Stanford and work experience at Adobe, IBM and HP. At IBM, I built the company’s eight billion dollar analytics business. At HP, I reported to Meg Whitman where I utilized a team of data scientists to determine how to restructure each business unit, and ultimately to split the company into four parts.

Three years ago, I joined Carbonite, and leveraged the incredible talent in Boston to grow the company from ~\$100M to ~\$250M in revenues. Carbonite provides data protection for over 100,000 businesses. We use public and private clouds to ensure that our customers’ businesses keep running, and data science to better serve those customers.

I believe data science and AI are key to Amazon’s future, and there is no better place for these skills than the Boston region. Decades ago, when Stanford and Berkley were heavily investing in silicon, operating systems and middleware, MIT was investing in AI. MIT’s computer science and AI lab, CSAIL, became the largest lab of its kind. Thousands of data science, AI and robotics companies were spawned, ranging from consumer robots to AI-based drug discovery. Today, these AI skills are exactly what is needed for data science driven businesses, making Massachusetts the best location on the planet for such companies.

**CARBONITE**

2 Avenue de Lafayette  
Boston, MA 02111  
[carbonite.com](http://carbonite.com)

This is closely related to the second reason why Massachusetts is a top location for HQ2. With over 200 colleges and universities, the State has the capacity to train massive numbers of new skilled workers, especially those who already live here in Massachusetts. If most new Amazonians can be sourced locally, the savings will be significant, at a minimum reducing relocation expenses and new housing development. Massachusetts uniquely has the capacity to develop talent at such scale. There is no other comparable state.

As a result, I have urged the City and State to provide a proposal to Amazon that highlights talent and talent development, which I believe in the long-term will be the most beneficial items to both Amazon and our residents.

I am available at any time should you have any questions and look forward to the prospect of welcoming HQ2 to the Boston region.

Regards,



Mohamad Ali



25 Thomson Place, 3rd Floor | Boston, MA 02210 | [goCatalant.com](http://goCatalant.com)

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Tuesday, October 10, 2017

Dear Mr. Bezos,

On behalf of Catalant Technologies, we would like to offer our support for Amazon's second headquarters to be located in Boston, MA. As startup co-founders, we have benefitted greatly from Boston's Innovation Ecosystem. Through Harvard Business School, starting a new company, and receiving Series B and C rounds of investing led by Boston firms Highland Capital Partners and General Catalyst, we have become invested in giving back to the community. We firmly believe that Amazon will be an incredible addition to our ever-growing city.

Amazon will greatly benefit from this established community and approaching opportunities through the extensive professional Boston networks. Catalant serves leading companies, including GE, Pfizer, Staples, IBM, Procter & Gamble, Univision and Medtronic. Like others in Boston, Catalant has established investors with a global presence, including Greylock Partners, GE Ventures, Mark Cuban and Intuit founder Scott Cook. Boston is home to a large group of impressive and inventive professionals who would both enhance and benefit from Amazon's presence. As Boston continues to grow, Amazon will only benefit our ecosystem.

It is no secret that Boston is home to the best group of young, hirable talent. There are 75 universities and colleges in the Greater Boston region, many of which boast cutting edge STEM/STEAM engineering programs (i.e. MIT, Harvard, Northeastern, etc.). We have seen a growing trend of students who want to stay in Boston post-graduation, to learn from the vast number of seasoned professionals and add real value to the companies for which they work. We are excited to have Amazon join the Boston community, because we believe it will only add more students, young professionals and talented executives to Boston. Amazon can both capitalize on our current situation, and assist with Boston's future growth.

Finally, our city boasts trail-blazing startups such as HubSpot, TripAdvisor, Actifico, athenahealth and Wayfair. Such Boston-based startups are setting the new standards of work, growth and innovation. Boston has an exceptionally supportive and inclusive community; members take pride in seeing their peers and colleague's success. Catalant has directly benefited from this community of local tech newsletters, trade organizations, non-profits, local professors and academics, accelerators and co-working spaces. We now seek to extend the same offering to other companies who are considering establishing a presence in Boston.

It would be our pleasure to welcome you to Boston. We believe in Boston's current and future success as we continue to create jobs where people can thrive and capitalize on the extensive network of professionals and opportunities. Amazon will be able to do the same, while adding vivacity to our community.

We look forward to working with you.  
Pat Petitti and Rob Biederman



**Mr. Jeff Bezos**  
**Chief Executive Officer**  
**Amazon Corporate Office Headquarters**  
**1200 12th Avenue South, Suite 1200**  
**Seattle, WA 98144**

Dear Mr. Bezos:

My name is Lior Div, and I am the co-founder and CEO of Cybereason, one of the nation's fastest growing cybersecurity firms, and we are proud to call Boston our home. I am thrilled to express my strong support of Boston's proposal to bring Amazon to our city.

When my co-founders and I were sitting around a table in Tel Aviv and making the hard decision of where in the U.S. to establish a global headquarters for our company, Boston wasn't a top contender. The city on a hill lost out to the luster of the usual technology hubs of Silicon Valley and Silicon Alley. But the more we thought about what each city had to offer our growing company, Boston surged to the top, which is why today Cybereason's bustling global headquarters is located in the Back Bay.

Our first imperative was locating in a city that could provide us with our most critical need: access to a world-class talent pool that would enable us to scale quickly and smartly. 110 new employees hired at our Boston headquarters later, our workforce needs have not only been met, they have been surpassed. Thanks to the dozens of top-tier academic institutions in the region and the commitment of other key stakeholders to develop a workforce that can meet the needs of a diverse array of growing company, we are able to attract dynamic leaders every single day.

In addition to our search for talent, we also chose Boston because we wanted to be situated at the epicenter of a dynamic, robust, and growing innovation ecosystem. Boston's ecosystem has truly come into its own over the past five years, and you can feel it across the city. In many cities, you can find inspiring entrepreneurs and dynamic VCs, but Boston goes far beyond that. There is a spirit of collaboration and openness in our community that also includes direct, strategic participation and engagement from non-profit institutions, universities, and government officials. This commitment from the private sector, non-profit organizations, and government leaders -- like Mayor Walsh and Governor Baker -- all working together to build one of the strongest innovation ecosystems in the nation is what I believe has brought Boston to the point it is today.

Lastly -- Boston has an X factor that matters: it is, simply put, an extraordinary place to live and work. Relocating from overseas with my family was a daunting task. But I am thankful to be in Boston, because it is a place that lives and breathes the idea that you

can do well for your investors while doing good for the world. It is a community in the truest sense of the word, and I consider myself lucky to be a part of it. Cybereason is eager for the opportunity to grow and thrive alongside Amazon. If we can ever be a resource or provide more information about our company's journey here, we would be honored to do so.

Best Regards,  
Lior Div

Co-founder & CEO  
Cybereason  
Cell: 617-459-3651  
Email: lior@cybereason.com



Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle WA 98144

Dear Jeff,

Here at DraftKings, we pride ourselves on bringing fans closer to the sports, teams and athletes they love and helping them discover *the game inside the game* (including via the new "Ask DraftKings" feature on Alexa). As a homegrown company that rebuffed offers to move elsewhere, we wanted to give you a better idea as to why DraftKings is so invested in Boston.

**Smart, savvy government partners:** Politicians publicly proclaiming support for their local "innovation economy" has become almost cliché. The words are rarely backed up by concrete action. Not so in Boston. At the state level, Governor Baker, Attorney General Healey, Speaker DeLeo and Senate President Rosenberg have played pivotal roles in crafting and passing common sense legislation which enabled our company and industry to grow. At the local level, Mayor Walsh and his team have proven to be true partners to DraftKings and many other innovation companies in Boston. City Hall's support is tangible, important and impactful. Through smart policymaking, creative collaborations and effective advocacy, the City has created the ideal environment for innovation companies to thrive.

**International talent hub:** No city in the world attracts such a continual influx of talent. Our colleges and universities are beacons for the best and brightest from across the globe. While schools such as Harvard and MIT typically get the headlines, there are dozens of other world class institutions including Boston College, Boston University, Tufts, and Worcester Polytechnic Institute that ensure local companies have a ready source of available talent. In addition to colleges and universities, Boston's unrivaled hospitals, cutting edge life sciences and biotech companies and groundbreaking technology companies create a dense and vibrant marketplace of ideas.

**Supportive, inclusive community:** People are proud to call Boston home. The City has made smart investments in key civic building blocks—arts, education, housing and open spaces—which have created dynamic neighborhoods and a high quality of life. Boston's innovation economy is an incubator of innovation, collaboration, and entrepreneurship. We have companies doing amazing things in robotics and cyber security, digital health and self-driving cars, in consumer and business tech. We feed off each other and support each other.

I don't presume to know all of the factors that will go into your decision. Every company has unique needs. But we at DraftKings have called Boston and Massachusetts home since our inception five years ago, so I can speak with some level of authority about what an incredible place this is to build and grow a company. We love it here, and we believe you will too.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Robins".

Jason Robins  
Co-Founder & CEO



October 11, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Ann R. Klee  
Vice President  
Boston Development & Operations

41 Franklin Street  
Boston, MA 02210  
T: 617 223 3004  
M: 203 381 9607  
ann.klee@ge.com

Dear Mr. Bezos,

A little over a year ago, GE relocated its corporate headquarters to the Seaport in Boston. We think that many of the factors that led us to select Boston - including its technologically-fluent workforce, innovation ecosystem, and rich, cultural environment - could also make Boston the right home for Amazon's new "HQ2."

We knew that Boston had world-class academic institutions - 75 colleges and universities with over 300,000 students from all over the world. We knew that we would be surrounded by a vibrant business community leading in fields ranging from robotics to life sciences, and additive manufacturing to financial institutions. We knew that Logan Airport offered direct routes to over 100 global destinations daily and was an easy 15-minute commute from downtown. We knew that our employees would be able to enjoy excellent schools, sports, museums and music, as well as great recreation opportunities from the Berkshires to Boston Harbor.

We also knew of, and were truly impressed by, the strong bipartisan working relationship between Governor Baker, Mayor Walsh, and their respective teams. City and state officials were true partners in our relocation, in everything from site selection to permitting our new campus. And the partnership continued strong even after we made the move. Governor Baker and Mayor Walsh worked with us every step of the way so we were able to break ground on our new campus in record time.

Boston, with its citizens, its institutions and its businesses, is an incredibly welcoming city. Over the past year, we've been hard at work becoming active partners and contributing members of the academic, business and philanthropic communities. A few examples are below. There are many more opportunities that Boston can offer a company like Amazon.

Boston has a great talent pool. We've been able to partner with some of the best, most creative minds in the world to develop next generation technologies and build the skills sets for the future of work. At MIT, for example, we're co-developing clean energy solutions and microgrid technology; at Northeastern University, we're co-creating an advanced manufacturing degree for non-traditional learners; and in collaboration with Partners HealthCare, we've launched a project to integrate artificial intelligence to improve patient outcomes.

Boston's innovation ecosystem attracts top entrepreneurs and start-up companies. We've already invested in 11 Boston-based startups in the healthcare, energy, advanced manufacturing and enterprise areas, and we've launched new startups like Avitas Systems, which is focused on transforming inspection services with advanced robotics, data analytics and artificial intelligence.

Our employees have quickly integrated into the fabric of the community, serving on the boards of over 30 of the most respected organizations across Boston and Massachusetts, volunteering thousands of hours with nonprofit organizations, and taking advantage of everything that Boston has to offer.

All of us at GE are proud to call Boston home. We know the city welcomes the opportunity to make it Amazon's new home as well. If we can help you in your decision-making process, or share our experience, please let us know.

Sincerely,

A handwritten signature in black ink that reads "Ann R. Klee".

Ann R. Klee



[www.masschallenge.org](http://www.masschallenge.org)  
contact@masschallenge.org

October 4, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Headquarters  
1200 12<sup>th</sup> Avenue South, Suit 1200  
Seattle, WA, 98144

Dear Jeff,

You are extremely capable, and I am sure you know the financials, the statistics, the projections, and the major institutions and players in the region. Boston has intangibles that can't be easily quantified, however there are many elements which make this city the best location for Amazon's HQ2.

You have an incredible opportunity to tap into one of the most unique and high-potential innovation ecosystems in the world.

The entrepreneurs here are successful and collaborative, technical talent is off the charts, businesses and institutions are engaged, investors are active, and the government makes it extremely easy for all stakeholders to work together. When early-stage entrepreneurs want to get connected to top investors or CEOs, they do. When corporates want to address a big opportunity, they lean on the startup community, and are generous with their time and money.

Boston has also become a proving ground and springboard for the next big ideas that will change the world. At MassChallenge Boston, we accelerate 128 startups from around the world annually. These entrepreneurs are affecting huge opportunities and addressing the most important problems of our time. They are developing treatments for blindness and HIV. They are pulling energy from high altitudes, and from the ocean's waves. They are farming in freight containers, building off-road wheelchairs, and teaching our kids to 3D print. And these startups are building our modern economy: our 1,000+ alumni have raised \$2B in funding, and have created over 65,000 jobs.

Mayor Walsh and his administration have long championed innovation and entrepreneurship. We are a city that solves problems, supports one another, and works tirelessly to create significant impact in the world. You will love Boston.

Join us here - where innovation happens!

Regards,

A handwritten signature in blue ink, appearing to read 'John Harthorne'.

John Harthorne  
MassChallenge, CEO  
John@MassChallenge.org

info@massrobotics.org  
[www.massrobotics.org](http://www.massrobotics.org)



October 3, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12<sup>th</sup> Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

We at MassRobotics enthusiastically support the City of Boston in their efforts to encourage Amazon to open your second headquarters here. MassRobotics is a non-profit organization whose mission is to help create and scale the next generation of successful robotics companies by providing entrepreneurs and innovative robotics/automation startups with the space and resources they need to develop, prototype, test, and commercialize their products and solutions. We were founded by leaders from the robotics community, including Tye Brady, the Chief Technologist at Amazon Robotics. Tye was a catalyst in early discussions with the city which helped our organization settle in Boston.

We chose Boston as our home due to many factors. First was Boston leadership's drive to embrace innovation and be early adopters of new technology. The mayor's support for initiatives, such as on street automated vehicle testing, highlights his commitment to this. Second was that the city has the highest concentration of academic institutions in North America, attracting the brightest students from around the world. The third factor was the entrepreneurial spirit of the city. We host international delegations weekly, all wanting to learn and understand about our "culture" which we feel cannot be replicated elsewhere. The fourth factor was the diverse cross section of exceptional talent, from brainpower to a hardworking blue-collar workforce, that can be found here.

MassRobotics fosters a collaborative ecosystem for academic, private, and public stakeholders that allows the kind of thought-sharing and creative exchange needed to find creative technical solutions that will address some of world's challenges using robotics. The wide variety of cutting edge startups in our shared workspace provide solutions from consumer to industrial, automation from manufacturing to automated vehicles and more. This collaborative and supportive environment is true throughout the city.

As you look at your company's roadmap I can imagine robotics will play an increasingly important role. Should you select our city, we will do all that we can to help ensure a smooth transition by extending our network to you and outreaching to our ecosystem to welcome you to the community.

Sincerely,

A handwritten signature in black ink that appears to read "Thomas Ryden".

Thomas Ryden,  
Executive Director  
[tomr@massrobotic.org](mailto:tomr@massrobotic.org) / 617-543-4778



Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Mr. Bezos,

I'm delighted to hear that you are considering the wonderful city of Boston as you search for a second home base for Amazon.

While Reebok has always been a Boston company, we made the decision last year to move our headquarters from the suburbs, where we had been for nearly 40 years, to the city's Seaport district. And while the reasons are many, one factor really stands out. Moving to Boston means moving to a city with unique neighborhoods and a passionate, innovative, and active community. Boston is a city that moves, and that movement brings the city to life.

Imagine your employees taking a lunch break to run amongst marathon runners, or taking in a fitness class at a city park. One of the fittest cities in America, Boston emits a tremendous energy unlike any other city. As you build this new home, I'm sure you'll be searching for a wealth of talent who bring this energy to work every day.

And when you combine this energy with the diversity of experience from a variety of industries (innovation and technology being at the top of that list) and the fresh-minded talent that enters the work force every year after graduating from the 75 colleges and universities across the region, it's easy to see why Boston is a perfect home for any company who hopes to drive innovation in the future.

We know that a transition like this can be stressful (we've lived it). However, the City of Boston made our transition to our new headquarters incredibly easy and stress-free; they've made us feel truly at home in a very short period of time.

The City and its leaders have proven valuable partners in ensuring a smooth transition. They have helped us to quickly gain all necessary permits to open on time, always keeping the best interests of the greater community in mind. In fact, we are utilizing the City's relationship with the Boston Public Schools to do our part to give back to the local residents via BOKS, our innovative before school exercise program.

Boston is a city of movement and we're excited to be part of it. We hope you are as well and hope to welcome you to the neighborhood soon!

A handwritten signature in black ink, appearing to read "Matt O'Toole".

Matt O'Toole  
Brand President, Reebok



Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12<sup>th</sup> Avenue South, Suite 1200  
Seattle, WA 98144

Dear Jeff,

We hope to welcome you to Boston.

Nowhere in the country do business, government and philanthropy come together like they do in Boston to make progress on issues we care about: workforce development, economic empowerment, education and the environment.

Boston is home to the greatest hospitals and universities in the world, as well as highly regarded cultural institutions and parklands, thanks to local philanthropy, which has also had a powerful impact on our toughest social challenges. Boston's remarkable tradition of philanthropy has backed bold ideas and pioneering approaches to problems affecting Boston—and cities across our entire nation. We live in what you've described as "the intersection of urgent need and lasting impact."

For example, the Community Health Center movement began in Boston with foundation support; the city now boasts the country's largest integrated primary-care network. Philanthropy helped launch Massachusetts Advocates for Children, leading to our nation's first bilingual education law in 1971 and first special-education law in 1972.

Many nonprofit organizations now becoming household names around the country were founded here with grants from foundations and contributions from generous individuals, including:

- *City Year*, which inspired *AmeriCorps*, sending thousands of altruistic young volunteers to 250 cities every year
- *Citizen Schools*, providing mentoring and after-school programming to thousands of low-income students of color in seven states
- *Health Leads*, placing volunteers in hospitals in seven U.S. cities to help families find non-traditional medical solutions
- *Local Initiatives Support Corporation (LISC)*, now operating in 30 other cities and rural areas in 33 states; LISC has built or rehabbed 320,000 units of housing, 40 health clinics, 35 supermarkets and 200 charter schools in low-income neighborhoods.
- *Reach Out and Read*, helping four million children in all 50 states acquire reading skills
- *Year Up*, bringing hands-on skills training and corporate internships to thousands of low-income young adults in 13 cities

Boston loves its history but is not hidebound. Today the city is doing more than any other to reach out to idealistic, young entrepreneurs and mold the next generation of philanthropists. Pledge 1% Boston is the first local chapter of a global movement of 3,500 startups committed to pledging 1% equity and other resources to support their communities.

## The Boston Foundation

The vibrancy of Greater Boston's philanthropic community and the scale of our civic engagement provide fertile ground for fresh, imaginative corporate leadership. Amazon will have a unique opportunity to model its dynamic problem-solving capacities by supporting innovative ideas that can be piloted, perfected and brought to scale in Boston—which has been called America's “laboratory of democracy”—then extended to urban centers across our country and the around the world.

What better place to work hard, have fun and make history?

Sincerely,



Paul S. Grogan  
President and CEO  
The Boston Foundation



Jeff Bezos, Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12<sup>th</sup> Avenue South, Suite 1200  
Seattle, WA 98144

October 2, 2017

Dear Mr. Bezos,

My husband JC and I own Trillium Brewing Company, an award-winning craft brewery that established roots in the Fort Point neighborhood of Boston in 2013. In just four years Trillium has become a global destination, made possible with the support of Boston's current progressive, forward-thinking administration. Boston has always been an innovative city; now it's a city at the forefront of fostering the culture of Live. Work. Play. We believe Amazon could build an incredible epicenter that fits seamlessly into our evolving dynamic landscape.

JC and I started the process of opening our brewery in 2011. At that time, Boston only had two licensed breweries, both large internationally distributed brands that have been operating for decades, and the process took us almost two years. We were adamant in pursuing our dream in the city we lived in and loved so we invested all our savings and navigated a complex licensing and permitting process of building a business not many understood. We finally opened to enthusiastic community support, and our success immediately created the need to expand outside the city limits.

Fast forward a few years and we're working in a completely different environment. The craft beer industry has exploded and we have a new administration in Boston that is proactive in its support of businesses that enrich the community and the lives of people who visit and live here. This summer we opened an outdoor beer garden in downtown Boston overlooking the harbor. In less than 3 months, we permitted and built this unique landmark location giving thousands of people in the city a place to sit outside with friends and enjoy a beer or two. Trillium Garden on the Greenway is the first project of its kind in Boston's modern history. We're also in the process of building a new flagship location in our Fort Point neighborhood. Our 16,000-square foot, 500 seat restaurant and brewery, with a patio and roof terrace, will be a vibrant and fun place to bring people together, a place JC and I want to hang out with friends or with our family, just steps from where we all live and work.

Boston already had it all: outstanding education, cutting edge science and technology, competitive sports, and easy access to the world. But we want more. Our new administration is open, nimble, and ready to support change to attract and retain the best and the brightest. Boston's Office of Economic Development has a sharp vision to make our close-knit urban community one of the most viable and thriving places to live in the country. I hope we'll be welcoming you and your team with beers!

Sincerely,

A handwritten signature in black ink, appearing to read "Esther Tetreault".

Esther Tetreault, Co-Founder  
@mrstrillium  
Trillium Brewing Company



Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos:

The Venture Café Foundation is writing this letter to show its support of the City of Boston's proposal for the 2<sup>nd</sup> Amazon Headquarters opportunity.

The Venture Café Foundation has been connecting innovators to make great things for over seven years in Greater Boston. We broaden, connect and support an inclusive innovation community through a public network of spaces and programs to help anyone with an idea have the opportunity to succeed. We operate Venture Café Kendall, District Hall, Roxbury Innovation Center and StartHub programs. We partner with the City of Boston on three of these programs (the last three listed).

The Boston area has a long history of innovation building off the strong education and university systems that generate research projects in a variety of industries. The ecosystem has many options for commercializing products and have them funded (as this is the 2<sup>nd</sup> highest concentration of venture funding). Boston has several strong industry sectors with anchor companies that inspire others to create new companies. The sector variety provides opportunities for fusion of ideas across sectors.

The City of Boston and Commonwealth of Massachusetts are awesome partners for the innovation and startup community. They actively partner with the full ecosystem to understand the needs of the community and see how they can help using a variety of approaches, including some strategic public private partnerships. The City of Boston has a strong commitment continuing to strengthen the education system and fostering innovation in all of their neighborhoods. They City of Boston also partners very well with companies and groups that are catalyzing startup activity.

Previous to my role as Executive Director of the Venture Café Foundation, I was on the management teams of five startup companies in the Boston area. I found the Boston support system to be incredibly helpful while building those companies.

We believe that Amazon would benefit significantly from expanding its operations in the Boston area with this second headquarters opportunity. An expanded Amazon presence would also enhance the Boston innovation community.

Regards,

A handwritten signature in black ink, appearing to read "K. Wiant".

Kevin Wiant  
Executive Director  
Venture Café Foundation



Jeff Leiden, M.D., Ph. D.  
President, CEO, and Chairman

October 5, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

Vertex is proud to offer its strong support for the City of Boston's effort to become home to Amazon's "HQ2". Vertex chose to locate its world headquarters in Boston and to become one of the Innovation District's anchor companies for the same reasons that make Boston a perfect fit for Amazon.

First and foremost, Boston has developed a unique innovation ecosystem in which large and small companies are fueled by the region's tremendous scientific, academic, entrepreneurial, and venture capital strengths. This ecosystem has created thousands of jobs and dozens of new medicines and technologies that have changed peoples' lives; and has contributed greatly to Vertex's success as a leading global biotech company.

We also have public sector leaders in Mayor Walsh and Governor Baker who work collaboratively to foster and grow the economy through smart public policies and active engagement. The recent explosion of growth in the Innovation District is a case study in how to create a thriving hub that can spark growth and excitement in the business community and across the city. As one of the first major employers in this neighborhood, we saw first-hand how Boston's leadership partnered with the private sector to create a vibrant community of innovation-based businesses surrounded by new hotels, housing, restaurants, and arts and entertainment facilities.

In addition to our engaged government leaders, Boston's private sector senior leadership has come together time and again to promote job growth, competitiveness and corporate civic engagement in Boston and throughout the region. Massachusetts Competitive Partnership members – CEOs of the largest companies in the state – are continually working in unison to ensure that this culture of innovation is supported and nurtured when public policies are being debated and enacted. The private sector is also highly engaged in giving back to our communities through education initiatives, internship opportunities, public transportation solutions or job training programs, among a number of other investments. We would welcome Amazon as another major contributor to these efforts to further strengthen the communities in and around Boston.

Finally, while Boston has a highly educated and innovative workforce, we continue to have our eye on developing smart, skilled talent for the future. We are investing public and private time and resources to ensure the next generation of scientists, entrepreneurs, and technology leaders are prepared for success – from the City of Boston's focus on STEM education and job programs, to programs like Vertex's Learning Lab that give local students the opportunity for hands-on experiences in the lab.

Amazon became a world-changing company because it created a community of smart, innovative, and risk-taking employees. A similar community already exists here in Boston and is ready to be tapped to write the next chapter in Amazon's amazing success story.

Best regards,

Jeff Leiden, M.D., Ph.D.  
Chairman, CEO and President



## THE ALLIANCE FOR BUSINESS LEADERSHIP

Progressive Vision | Voice | Action

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South  
Suite 1200  
Seattle, WA 98144

October 3, 2017

Dear Mr. Bezos:

Thank you for considering Boston as a site for Amazon's second corporate headquarters. I write to you as the President of the Alliance for Business Leadership, a decade-old coalition of progressive business leaders here in Massachusetts united in the belief that social responsibility and sustainable economic growth go hand-in-hand. While many Boston boosters have no doubt pointed out the countless ways in which our city and the surrounding region can benefit Amazon, allow me to take a different approach: there are many ways in which Amazon and Boston can be mutually beneficial to each other. Boston is a place where Amazon can do well by doing good.

**1. Diverse talent.** One of Amazon's leadership principles is "Hire and Develop the Best." Good news: we have a wealth of talent here in Boston, and it's diverse. Boston is a majority minority city, with a highly educated workforce. Nearly 48% of Boston's African American residents have pursued an education beyond high school, with the same holding true for 36% of Hispanics and 57% of Asians. Access to a skilled and varied talent pool presents a company looking to hire and develop the best the opportunity to do so while diversifying its ranks - not just the right thing to do, but a move that's good for the bottom line. Both McKinsey and Bersin by Deloitte have made the case that inclusive workplaces lead to positive financial outcomes for companies, and Boston has the multi-cultural talent on hand to fuel growth.

**2. Transportation community engagement.** Amazon has experience with civic dialogue on issues of transportation. Boston has the most light rail ridership of any transit system in the country, and continues to examine how to support its existing transportation infrastructure while investing in growth. Coming off of the Sound Transit 3 debate, Amazon is primed to offer a great deal to the region's conversation about what's next for transportation in and around Boston - offering a valuable outside perspective and weighing in on a conversation that would clearly be important to any organization located in Greater Boston. Amazon's direct engagement in Seattle's process would be a welcome source of insight here in Boston.

**3. Innovative social entrepreneurship.** Finally, Amazon knows how to support social entrepreneurs. Amazon's work with ventures like FareStart would be directly applicable to the plethora of innovative nonprofits in and around Boston. From weight lifting programs for at-risk youth to community-based incubators for food startups, Boston's forward-thinking non-profit scene would both benefit from Amazon's history of community engagement and would provide a meaningful opportunity for Amazon teams to connect with their neighbors.

The opportunities for Amazon in Boston extend well beyond our world-class universities, thriving innovation sector, and robust direct flight services in and out of Logan. Boston offers opportunities for Amazon to create sustainable growth both for itself and for the Boston community. It's a symbiotic relationship that would be welcome here.

Thank you, again, for your consideration.

Sincerely,  
Jesse Mermell  
President



October 3, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12<sup>th</sup> Avenue South  
Seattle, Washington 98144

Dear Mr. Bezos:

While you and your team are learning about the myriad benefits and qualities of Boston that make it an ideal location for Amazon's second headquarters, I want to highlight one very important factor that is driving Boston's economic success and increasingly high quality of life: our diverse, collaborative and connected business community.

The strength of Boston's business community lies in the fact that we are diverse in so many ways, and yet we work together as one force driving our economy, creating jobs, and shaping the civic agenda. Every major industry is represented whether in the form of long-established multinational companies or local startups just weeks old. The business leadership is made up of some of the nation's top CEOs, some of whom can trace their lineage to the Mayflower, and others who immigrated to America in their lifetime. Integrated seamlessly in this blend of businesses are our world-renown academic medical centers and research universities that super-charge the economy by facilitating a constant flow of highly skilled people and innovative ideas between industries and institutions that cannot be found in any other city.

Boston's business community has a long history of successfully working closely with the city and state as allies united in creating solutions that drive economic development and generate economic opportunity for people and businesses. This relationship allowed us to make history when we created affordable health care for all and education reforms that became models for the nation. The business community and government continue to work as one to create a highly competitive economy by building the best workforce in the world through stronger early, elementary and higher education, improving economic mobility in every community, and developing and retaining the talent that Massachusetts produces and attracts through its foundations in learning and enterprise.

Today, Boston is a modern global city and yet we retain all the best characteristics of a strong New England town, always working hard together, sharing success, and creating opportunity to benefit all. In a word: community. We hope that in all the factors driving your decision to locate here, you consider the invaluable benefits that Amazon, and Boston, would experience if you and the company became a leader in Boston's business community and a significant force in our work transforming the world's economy and people's lives.

Sincerely,

A handwritten signature in black ink, appearing to read 'James E. Rooney'.  
James E. Rooney  
President & CEO



MASS TECHNOLOGY LEADERSHIP COUNCIL

October 6, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12th Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos,

On behalf of the Massachusetts Technology Leadership Council (MassTLC), the state's largest non-profit technology industry association, I am writing in support of the City of Boston's proposal for Amazon to locate its second North American headquarters in the City of Boston.

Massachusetts today is ideally situated for your second headquarters and is on a positive trajectory for the future. We have a vibrant and growing innovation ecosystem, employing more than 300,000 people directly in the tech sector plus close to 100,000 in tech occupations across all other industries in state, representing 12% of the Commonwealth's payroll. Add in the support (multiplier) jobs and tech underpins 34% of the jobs, 44% of the payroll, and 34% of the gross state product in Massachusetts. The Commonwealth has the highest concentration of tech sector employment nationwide and tech is driving growth and opportunity across every industry in the state.<sup>1</sup>

Massachusetts boasts a 400-year legacy of innovation; the nation's greatest concentration of tech talent and academic institutions; cutting-edge corporate, government and industry research labs; forward-looking state government; public-private partnerships; tech-savvy consumer market; a globally interconnected mindset; available risk capital; and vibrant start-up community. MassTLC surveyed over 150 senior decision makers in the tech sector and two-thirds reported that the next 12 months would be a good time for expansion in Massachusetts (compared with only 7% who did not) and 96% cited our talented workforce as the #1 advantage to doing business in Massachusetts, followed by our higher education system (91%), innovation ecosystem (91%) and quality of life (89%).<sup>2</sup>

The Commonwealth has a flourishing technology ecosystem that is based on core values – centered around building equity through partnership and collaboration – and built upon a rich legacy of providing the foundational infrastructure on which platform ecosystems thrive. The state has long been a leader in big data, complex analytics, and machine intelligence technologies such as artificial intelligence and machine learning.<sup>3</sup> Together, with the region's deep roots in networking and communications technologies, we have the core elements for creating and nurturing 21st-century platform ecosystems and would welcome Amazon's second headquarters here in the Commonwealth of Massachusetts.

Sincerely,

Thomas Hopcroft  
President & CEO

<sup>1</sup> MassTLC's (forthcoming) State of the Technology Economy report (Fall 2017)

<sup>2</sup> MassTLC's (forthcoming) Tech Pulse Index report (Fall 2017)

<sup>3</sup> MassTLC's Internet of Things report (Summer 2017)



October 4, 2017

Mr. Jeff Bezos  
Chief Executive Officer  
Amazon Corporate Office Headquarters  
1200 12<sup>th</sup> Avenue South, Suite 1200  
Seattle, WA 98144

Dear Mr. Bezos:

As you sift through countless pleas for HQ2, we'll advocate for Boston efficiently. Consider the following:

**Network Effects:** The lifeblood of innovation is the transfer of ideas through relationships. Boston's startup and innovation economy is tight-knit; with over a hundred early stage VC firms, nearly two thousands startups, and an ever-growing community of enterprise companies, Boston's cocktail is only growing more potent ([and it's already #1](#)).

**Talent Pool:** Massachusetts' 52 Universities, 250,000+ students are well documented; the world-class engineers, sales teams, and executives driving the startup economy get less play, but are equally core to viability of our ecosystem. The world's best and brightest flock to Boston, from roboticists to data scientists, oncologists to game designers.

**Deep Tech:** With the wildly successful acquisition of Kiva Systems and the large Alexa group, Amazon has already tacitly acknowledged Boston as the seat of deep tech. The interplay between academia and the startup / innovation ecosystem here is unique, and with constant investments in the space (e.g. MIT's The Engine; Harvard's iLab and LifeLab), that focus is on the rise, and represents an unequaled opportunity for Amazon's future business.

**Technology / Life Science Convergence:** Nowhere in the world does cutting-edge innovation in Technology and Life Science happen in closer proximity - or with more overlap. Massachusetts is home to the world's leading hospital systems and Life Science innovation cluster, and a state government dedicated to ensuring both collide with technology in industry-defining fashion. As the future of these industries continues to intertwine, Boston is uniquely positioned to accelerate it.

**True Cohesion:** Boston's density enables (perhaps necessitates) a kind of inter-organizational cooperation not found in other markets. For example, our own organization alone - despite the moniker of "Venture Capital Association" - is currently developing one program in close partnership with public companies like Vertex Pharmaceuticals and Carbonite; another facilitating university student-internships at hundreds of startups; and yet another leveraging Harvard researchers to bring gender equity transparency to the venture capital industry. Such collaboration is far from unique in our community.

**Socially forward-thinking:** As the workforce of the future comes into clearer focus, one certainty is that it will not be as white or male as it is now. While these issues have recently gained traction in newsrooms and boardrooms, Boston has been actively addressing them for some time. Supported by programs like the [GEIR](#), Boston startups boast a third more immigrant founders than the national average. Initiatives like the NEVCA's [Hack.Diversity](#), with its resounding, cross-industry buy in, highlight Boston's drive to improve, and point to a future where Amazon's Boston HQ2 draws from a talent pool that is more diverse than any metro area in the country.

The business community is aligned: we want you here. Once the decision is made, we will continue to be your allies.

Sincerely,

The Board of Directors of the New England Venture Capital Association

## References

### 1. Your Perfect Match

<sup>1</sup> U.S. Census Bureau, 2010 and 2016 1-year American Community Surveys, BPDA Research Division Analysis

<sup>2</sup> Bureau of Economic Analysis, 2010-2016. Boston-Cambridge-Newton, MA-NH county-defined metro area

<sup>3</sup> Bureau of Economic Analysis, 2010-2016. Boston-Cambridge-Newton, MA-NH county-defined metro area

<sup>4</sup> U.S. Census Bureau, 2016 1-year American Community Survey, BPDA Research Division Analysis

<sup>5</sup> U.S. Census Bureau, 2016 1-year American Community Survey, BPDA Research Division Analysis

<sup>6</sup> U.S. Census Bureau, 2015-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>7</sup> U.S. Census Bureau, 2015-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>8</sup> U.S. Census Bureau, 2015-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>9</sup> "Open Door Report, 2015," The Institute of International Education

<sup>10</sup> U.S. Census Bureau, 2015 American Community Survey, PUMS; Bureau of Economic Analysis (BEA); Bureau of Labor Statistics (BLS), Regional Economic Models, Inc. (REMI), BPDA Research Division Analysis

<sup>11</sup> National Institutes of Health "NIH Awards by Location and Organization FY2016," BPDA Research Division Analysis

<sup>12</sup> U.S. Census Bureau, 2016 1-year American Community Survey, BPDA Research Division Analysis

<sup>13</sup> National Center For Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), BPDA Research Division Analysis

<sup>14</sup> MASCO, "Longwood Medical and Academic Area Fact Sheet 2013" [http://www.masco.org/system/files/downloads/thelma/fact\\_sheet\\_2013\\_final.pdf](http://www.masco.org/system/files/downloads/thelma/fact_sheet_2013_final.pdf), BPDA Research Division Analysis

<sup>15</sup> U.S. Bureau of Economic Analysis (BEA), Massachusetts Executives Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

<sup>16</sup> "Innovation That Matters 2017," 1776: <https://www.1776.vc/reports/innovation-that-matters-2017/>

<sup>17</sup> U.S. Bureau of Economic Analysis (BEA), Massachusetts Executives Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

<sup>18</sup> Jones Lang LaSalle (JLL), 2016

<sup>19</sup> MassRobotics

<sup>20</sup> MassRobotics

<sup>21</sup> MassRobotics

<sup>22</sup> MassRobotics

<sup>23</sup> U.S. Census Bureau, Zip Code Business Pattern, 2015

<sup>24</sup> Smith Travel Research; BPDA Analysis

<sup>25</sup> City of Boston Assessing Data FY'17, BPDA Office of Digital Cartography and GIS (ODCGIS)

<sup>26</sup> City of Boston Assessing Data FY'17, BPDA Office of Digital Cartography and GIS (ODCGIS)

<sup>27</sup> Imagine Boston 2030: A Plan for the Future of Boston, p. 350

<sup>28</sup> GoBoston 2030 Vision and Action Plan, page 63 [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>29</sup> U.S. Census Bureau, 2016 1-year American Community Survey, BPDA Research Division Analysis

<sup>30</sup> Walkscore.com

<sup>31</sup> [http://www.aviationpros.com/press\\_release/12340488/logans-first-non-stop-service-to-south-america-begins](http://www.aviationpros.com/press_release/12340488/logans-first-non-stop-service-to-south-america-begins)

<sup>32</sup> <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/timetables/System-Timetable-090117.pdf>

<sup>33</sup> <https://www.greyhound.com/en/ecommerce/schedule>  
<https://peterpanbus.com>  
<https://us.megabus.com/journey-planner>

<sup>34</sup> Massport, OAG Schedules & Airlines

<sup>35</sup> 2017 Massachusetts Clean Energy Industry Report

<sup>36</sup> 2016 The Solar Foundation

<sup>37</sup> 2017 Massachusetts Clean Energy Industry Report

<sup>38</sup> Housing a Changing City: Boston 2030 2017 Q2 Report, <https://www.boston.gov/departments/neighborhood-development/housing-changing-city-boston-2030>

<sup>39</sup> U.S. Bureau of Economic Analysis, Regional Price Parities, 2015.

<sup>40</sup> <http://www.citigroup.com/citi/citiforcities/pdfs/hotspots2025.pdf>

<sup>41</sup> Focus on Tax 2016 KPMG's guide to international tax competitiveness, Competitive Alternatives—special report [https://www.competitivealternatives.com/reports/compalt2016\\_report\\_tax\\_en.pdf](https://www.competitivealternatives.com/reports/compalt2016_report_tax_en.pdf)

<sup>42</sup> Massachusetts Budget and Policy Center, retrieved from [www.massbudget.org](http://www.massbudget.org)

<sup>43</sup> All Massachusetts tax rates are available here: <http://www.mass.gov/dor/all-taxes/tax-rate-table.html>

<sup>44</sup> For further details see Appendix-8 "Crime Rate in Boston and 5 County Area"

<sup>45</sup> FBI Uniform Crime Reporting, Table 8, BPDA Research Division Analysis

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## 2. Your Hub of Skilled Talent

<sup>1</sup> U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

<sup>2</sup> Source: Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis., NECTA metropolitan region

<sup>3</sup> U.S. Census Bureau, 2016 American Community Survey, BPDA Research Division Analysis, NECTA metropolitan region

<sup>4</sup> U.S. Census Bureau, 2010 & 2016 American Community Surveys, BPDA Research Division Analysis. Ages 25 and older in the five-county region.

<sup>5</sup> Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Form ES-202, BPDA Research Division Analysis

<sup>6</sup> U.S. Census Bureau, 2010 & 2016 American Community Surveys, BPDA Research Division Analysis. Ages 25 and older in the five-county region.

<sup>7</sup> U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES), BPDA Research Division Analysis. The Boston-Cambridge-Nashua NECTA is compared to all metro areas with greater than 1,000,000 residents.

<sup>8</sup> U.S. Census Bureau, 2007-2015 1-year American Community Surveys, BPDA Research Division Analysis

<sup>9</sup> U.S. Census Bureau, 2011-20150-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>10</sup> "Open Door Report, 2015," The Institute of International Education

<sup>11</sup> U.S. Census Bureau, 2011-201510-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>12</sup> Bureau of Labor Statistics Occupational Employment Statistics May 2016, BPDA Research Division Analysis

<sup>13</sup> Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis.

<sup>14</sup> Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis.

<sup>15</sup> Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis.

<sup>16</sup> MassTLC's (forthcoming) Tech Pulse Index report (Fall 2017)

<sup>17</sup> Boston is third among 25 comparison cities in each measure. U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter 2014).

<sup>18</sup> <https://www.northeastern.edu/coop/>

<sup>19</sup> <http://www.bu.edu/eng/departments/ece/>

<sup>20</sup> <http://www.bentley.edu/rankings-and-recognition>

<sup>21</sup> <http://www.simmons.edu/academics/schools/school-of-management>

<sup>22</sup> <http://www.reuters.com/most-innovative-universities-2016/profile?uid=52>; <http://www.massachusetts.edu/about-umass/points-pride>

## 5. There's More

<sup>1</sup> U.S. Census Bureau, 2010 Decennial Census, 2016 American Community Survey, BPDA Research Division Analysis

<sup>2</sup> Boston Planning & Development Agency Research Division, "Boston's Population Projections: 2010-2030" Population Projections

<sup>3</sup> U.S. Census Bureau, 2016 American Community Survey, BPDA Research Division

<sup>4</sup> Bureau of Economic Analysis, 2010-2016. Boston-Cambridge-Newton, MA-NH county defined metro area

<sup>5</sup> Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis Reshared

<sup>6</sup> Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

<sup>7</sup> National Center For Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), BPDA Research Division Analysis

<sup>8</sup> Boston Department of Neighborhood Development, "Student Housing Trends: 2016-2017 Academic Year," excludes MIT.

<sup>9</sup> U.S. Census Bureau, 2007-2015 1-year American Community Surveys, PUMS, BPDA Research Division Analysis

<sup>10</sup> "Open Door Report, 2015," The Institute of International Education

<sup>11</sup> U.S. Census Bureau, 2010-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>12</sup> U.S. Census Bureau, 2016 1-year American Community Survey, BPDA Research Division Analysis. Ages 25 to 64.

<sup>13</sup> U.S. Census Bureau, 2010 & 2016 American Community Surveys, BPDA Research Division Analysis. Ages 25 and older in the five-county region.

<sup>14</sup> U.S. Census Bureau, 2007-2015 1-year American Community Surveys, BPDA Research Division Analysis

<sup>15</sup> U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2014), BRA Research Division Analysis

<sup>16</sup> U.S. Census Bureau, 2010-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>17</sup> U.S. Census Bureau, 2016 1-year American Community Survey, BPDA Research Division Analysis

<sup>18</sup> U.S. Census Bureau, 201510-2014 American Community Survey, PUMS, BPDA Research Division Analysis

<sup>19</sup> BiCWA is a nonprofit organization charged with addressing challenges and limitations of the traditional workforce system common to leading innovative communities. From this partnership, Boston was identified to serve as the pilot city for a new initiative known as "Tech Talent Exchange" (TTX), a 21st century workforce solution focused on the IT service industry.

<sup>20</sup> In 2016, public and private workforce leaders from Boston, Silicon Valley, and New York formed the BiCoastal Workforce Alliance (BiCWA), a nonprofit organization charged with addressing challenges and limitations of the traditional workforce system common to leading innovative communities. From this partnership, Boston was identified to serve as the pilot city for a new initiative known as "Tech Talent Exchange" (TTX), a 21st century workforce solution focused on the IT service industry.

<sup>21</sup> National Center For Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), BPDA Research Division Analysis; Boston Department of Neighborhood Development, BPDA Research Division Analysis

<sup>22</sup> "Open Door Report, 2015," The Institute of International Education

<sup>23</sup> BFIT Office of Career Services & Industry Partnerships 2016 Graduate Survey

<sup>24</sup> <http://www.bentley.edu/rankings-and-recognition>

<sup>25</sup> <http://www.bentley.edu/academics/departments/accountancy>

<sup>26</sup> <http://www.bentley.edu/academics/departments/management>

<sup>27</sup> <http://www.bu.edu/eng/>

<sup>28</sup> <http://www.bu.edu/eng/departments/ece/> ranked 15th in the nation among private graduate programs

<sup>29</sup> <http://www.bu.edu/eng/departments/se/> awarded \$14.1 million in research grants during FY 2016

<sup>30</sup> <http://www.bu.edu/questrom/>

<sup>31</sup> <http://www.bu.edu/law/>

<sup>32</sup> <http://www.bu.edu/questrom/degree-programs/ms-in-management-studies/>

<sup>33</sup> <https://www.seas.harvard.edu/harvard-robotics>

<sup>34</sup> <http://ciqm.harvard.edu/faculty.html>

<sup>35</sup> <https://privacymatters.seas.harvard.edu/>

<sup>36</sup> <https://datascience.harvard.edu/>

<sup>37</sup> Harvard Medical School Master of Biomedical Informatics, Harvard T.H. Chan School of Public Health Master in Health Data Science, Faculty of Arts and Sciences Master in Data Science

<sup>38</sup> <http://www.csail.mit.edu/>

<sup>39</sup> [http://www.csail.mit.edu/research\\_groups](http://www.csail.mit.edu/research_groups)

<sup>40</sup> <http://groups.csail.mit.edu/dig/>

<sup>41</sup> <http://hci.csail.mit.edu/>

<sup>42</sup> <http://groups.csail.mit.edu/vision/welcome/>

<sup>43</sup> <http://idss.mit.edu/>

<sup>44</sup> <http://news.mit.edu/2017/mit-phd-amanda-giang-helps-decision-makers-monitor-and-mitigate-mercury-pollution-0614>

<sup>45</sup> <http://orc.mit.edu/>

<sup>46</sup> <http://imes.mit.edu>

<sup>47</sup> <http://www.media.mit.edu/groups/affective-computing/overview/>

<sup>48</sup> <http://groups.csail.mit.edu/rrg/index.php>

<sup>49</sup> <http://groups.csail.mit.edu/locomotion/index.html>

<sup>50</sup> <http://www.youtube.com/watch?v=XMKQbqnXXhQ>

<sup>51</sup> <http://biomimetics.mit.edu/>

<sup>52</sup> <http://news.mit.edu/2017/miniaturing-brain-smart-drones-0712>

<sup>53</sup> <http://www.media.mit.edu/groups/personal-robots/overview/>

<sup>54</sup> <http://mitnano.mit.edu/tags/computing-communications>

<sup>55</sup> <http://mitnano.mit.edu/tags/energy>

<sup>56</sup> <http://mitnano.mit.edu/tags/health-health-care>

<sup>57</sup> <http://mitnano.mit.edu/tags/manufacturing>

<sup>58</sup> <http://mitnano.mit.edu/tags/materials-structures>

<sup>59</sup> <http://mitnano.mit.edu/tags/prototyping>

<sup>60</sup> <http://mitnano.mit.edu/tags/sustainable-futures>

<sup>61</sup> <http://mitnano.mit.edu/tags/toolmaking>

<sup>62</sup> <http://mitnano.mit.edu/>

<sup>63</sup> <http://go.affo.org/>

<sup>64</sup> <http://go.affo.org/>

<sup>65</sup> <http://news.mit.edu/2016/new-method-producing-some-metals-0824>

<sup>66</sup> <http://news.mit.edu/2010/tissue-legos-0513>

<sup>67</sup> <http://news.mit.edu/2017/one-vaccine-injection-could-carry-many-doses-0914>

<sup>68</sup> <http://news.mit.edu/2017/3-d-printing-buildings-0426>

<sup>69</sup> <http://news.mit.edu/2017/3-d-printing-cellulose-0303>

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<sup>71</sup> <http://news.mit.edu/2017/low-power-chip-speech-recognition-electronics-0213>

<sup>72</sup> <http://news.mit.edu/2016/neural-chip-artificial-intelligence-mobile-devices-0203>

<sup>73</sup> <http://news.mit.edu/2012/biological-battery-1107>

<sup>74</sup> <http://news.mit.edu/2017/student-profile-gregory-falco-0905>

<sup>75</sup> <http://news.mit.edu/2016/mit-researchers-create-citywide-building-energy-model-boston-0222>

<sup>76</sup> <http://equus.mit.edu/>

<sup>77</sup> <http://qeg.mit.edu/>

<sup>78</sup> <http://go.affoa.org/>

<sup>79</sup> <http://news.mit.edu/2017/affoa-launches-state-art-facility-prototyping-advanced-fabrics-0619>

<sup>80</sup> <http://thengine.xyz>

<sup>81</sup> <http://news.mit.edu/2017/the-engine-announces-investments-first-group-startups-0919>

<sup>82</sup> <http://www.broadinstitute.org/>

<sup>83</sup> <http://www.massgeneral.org/cimt/>

<sup>84</sup> <http://www.whoi.edu/>

<sup>85</sup> <http://mit.whoi.edu/home>

<sup>86</sup> <http://www.media.mit.edu/groups/city-science/overview/>

<sup>87</sup> <http://ilp.mit.edu/>

<sup>88</sup> <http://startupexchange.mit.edu/startupexchange/html/index.html>

<sup>89</sup> <http://tatacenter.mit.edu/>

<sup>90</sup> <http://collaborative.mit.edu/>

<sup>91</sup> <http://lgo.mit.edu/>

<sup>92</sup> <http://www.edx.org/>

<sup>93</sup> <http://www.edx.org/>

<sup>94</sup> <http://deshpande.mit.edu>

<sup>95</sup> <http://thengine.xyz>

<sup>96</sup> <http://oeop.mit.edu/>

<sup>97</sup> <http://oeop.mit.edu/programs/seed/program-details>

<sup>98</sup> <http://oeop.mit.edu/programs/mites>

<sup>99</sup> <http://edgerton.mit.edu/k-12>

<sup>100</sup> <https://openlearning.mit.edu/>

<sup>101</sup> <https://openlearning.mit.edu/beyond-campus/transforming-k-12-education>

<sup>102</sup> <http://future.mit.edu/>

<sup>103</sup> <http://www.olin.edu/about/rankings-awards/>

<sup>104</sup> <http://www.simmons.edu/academics/schools/school-of-library-and-information-science/about>

<sup>105</sup> <https://www.wpi.edu/about>

<sup>106</sup> <https://www.wpi.edu/sites/default/files/inline-image/2016%20CDC%20Mgmt%20Post%20Grad%20Report.pdf>

<sup>107</sup> U.S. News & World Report, "Top Ranked Massachusetts Schools" <https://www.usnews.com/education/best-high-schools/massachusetts>

<sup>108</sup> Quality Counts 2017, Education Week, <http://www.edweek.org/ew/qc/2017/2017-state-education-grades-map.html>

<sup>109</sup> Boston Public Schools at a Glance, 2016-2017

<sup>110</sup> OpenFlights: Airport and airline data, BPDA Research Division Analysis

<sup>111</sup> [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>112</sup> GoBoston 2030 Vision and Action Plan, page 37 [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>113</sup> GoBoston 2030 Vision and Action Plan, page 37 [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>114</sup> GoBoston 2030 Vision and Action Plan, page 63 [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>115</sup> WalkScore.com. Compared to a set of 25 comparable major cities.

<sup>116</sup> WalkScore.com

<sup>117</sup> U.S. Census Bureau, 2016 American Community Survey, BPDA Research Division Analysis

<sup>118</sup> GoBoston 2030 Vision and Action Plan, page 61 [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>119</sup> <https://www.thehubway.com>

<sup>120</sup> U.S. Census Bureau, 2016 American Community Survey 1 year estimates

<sup>121</sup> Massachusetts Bay Transportation Authority, retrieved from [http://old.mtba.com/about\\_the\\_mbta/history/?id=970](http://old.mtba.com/about_the_mbta/history/?id=970)

<sup>122</sup> Massachusetts Bay Transportation Authority, <http://www.mtabackontrack.com/performance/index.html#/home>

<sup>123</sup> Ridership and Service Statistics: Fourteenth Edition 2014, MBTA, July 2014

<sup>124</sup> <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/timetables/System-Timetable-090117.pdf>

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<sup>127</sup> Massport Boston-Logan International Airport Monthly Airport Traffic Summary

<sup>128</sup> Expedia.com

<sup>129</sup> Massport, OAG Schedules & Airlines

<sup>130</sup> GoBoston 2030 Vision and Action Plan, page 37 [https://www.boston.gov/sites/default/files/go\\_boston\\_2030\\_-\\_full\\_report\\_to\\_download.pdf](https://www.boston.gov/sites/default/files/go_boston_2030_-_full_report_to_download.pdf)

<sup>131</sup> INRIX Research, "INRIX Global Traffic Scorecard" February 2017

<sup>132</sup> U.S. Census Bureau, 2006 and 2016 American Community Surveys, BPDA Research Division

<sup>133</sup> Go Boston 2030 Vision and Action Plan, 2017.

<sup>134</sup> National Institutes of Health "NIH Awards by Location and Organization FY2016," BPDA Research Division Analysis

<sup>135</sup> City of Boston General Obligation Refunding Bonds, March 15, 2016, pp 160.

<sup>136</sup> America's Health Rankings.

<sup>137</sup> Boston Resident Deaths, Massachusetts Department of Public Health; Analysis: Boston Public Health Commission Research and Evaluation Office. Premature mortality is defined as death before age 65.

<sup>138</sup> Massachusetts Convention Center Authority, retrieved from <https://massconvention.com/about-us/about-us>.

<sup>139</sup> CityofBoston.gov/Arts.

<sup>140</sup> Housing a Changing City: Boston 2030 2017 Q2 Report, <https://www.boston.gov/departments/neighborhood-development/housing-changing-city-boston-2030>.

<sup>141</sup> US Census Bureau, 2016 1-year American Community Survey.

<sup>142</sup> Metropolitan Area Planning Council (MAPC), September 2017.

<sup>143</sup> FBI Uniform Crime Reporting, Table 8, BPDA Research Division Analysis.

<sup>144</sup> <https://www.boston.gov/departments/police>.

<sup>145</sup> FBI Uniform Crime Reporting, 2015, Table 8, BPDA Research Division Analysis. Part 1 crimes per 100,000 population.

<sup>146</sup> U.S. Bureau of Economic Analysis, Regional Price Parities, 2015.

<sup>147</sup> IESE Center for Globalization.